

**“Is the regulation of single-use plastic in South Africa a waste of time?”**

LH Frost

922419302

Submitted in partial fulfilment of Masters of Law Degree in Environmental Law

School of Law

University of KwaZulu-Natal

Supervisor: Prof M Kidd

***Declaration***

I, Lauren Frost, Registration number 922419302, hereby declare that the thesis entitled:

**“Is the regulation of single-use plastic in South Africa a waste of time?”**

is the result of my own research and has not been submitted in any form, either in part or full, to any institution or university. The use of work by others has been duly acknowledged within the text.

---

Lauren Frost

---

Date

As the candidate’s Supervisor, I agree/ do not agree to the submission of this thesis

---

Prof M Kidd

---

Date

## *Acknowledgements*

With grateful thanks:

- To my husband whose belief in me has helped me not to give up;
- To my children who teach me something new each day. May you realise that you are never too old to learn;
- To my mom for her unwavering support and for being an inspiration as a life-long learner and teacher;
- To my friends and extended family for keeping me laughing; and
- To Prof Kidd for his guidance and support.

<i><b>Table of Contents</b></i>	<i><b>Page Numbers</b></i>
Abstract	vi
Acronyms	vii
1. Introduction	
1.1 Background	1
1.2 Statement of the problem	2
1.3 Research questions	6
1.4 Methodology	6
1.5 Structure	7
2. Regulation of single-use plastic	
2.1 Definition of single-use plastic	9
2.2 Impacts of single use plastic	10
2.2.1 Environmental impacts	10
2.2.2 Health impacts	12
2.2.3 Socio-economic impacts	13
2.3 The current legislative regime in South Africa relating to single use plastic and plastic waste	
2.3.1 International Legal Instruments	14
2.3.2 NEMA and NEM: Waste Act	17
2.3.3 Plastic Bag Regulations	21
2.4 A comparison of regulation in foreign jurisdictions to curb plastic pollution	
2.4.1 European Union	26
2.4.2 Rwanda and Kenya	28

3.	Challenges South Africa faces with regard to promulgation and enforcement of legislation banning single use plastics – is legislation capable of implementation?	
3.1	Socio-Economic challenges	32
3.2	Political challenges	35
4.	Recommendations to address the regulation of single-use plastic in South Africa	
4.1	Regulation banning single-use plastics	39
4.2	Defining plastics to be banned	41
4.3	Categorising single-use plastics	43
4.4	Proposed promulgation of legislation	45
4.5	Content of proposed legislation	48
5.	Conclusion	51
6.	Bibliography	54

## *Abstract*

The aim of a partial or complete ban of the use of single-use plastic in food packaging would be to reduce the amount of plastic waste that plagues South Africa and results in pollution to both our land and water resources. The reduction of plastic pollutants is not only important for the short term health of animals, plants and humans but it is critical to ensure that these resources are preserved for future generations. As such, in curbing plastic pollution we would also be meeting one of the objectives of the National Environmental Management Act<sup>1</sup> as well as numerous obligations we have as signatories to international agreements.

Measures to regulate the use of single-use plastic have been implemented in some international jurisdictions already. These are useful to consider for both their suitability for implementation in South Africa and to identify any challenges that may have resulted and may be relevant to South Africa. South Africa is already behind many countries that have to date either partially or completely banned certain plastic products and therefore if we do not act soon, we will find ourselves under increasing pressure from the international community to conform. The banning of these products is best approached in phases and manufacturers and consumers need time to adapt in order to avoid negative consequences that may result. It is therefore important that we expedite this process as it will take some time to finalise.

There are a number of potential challenges to the implementation of bans of single-use plastic. For South Africa in particular, the economic impact of a partial or total ban of single-use plastic will be an important consideration for a country that can ill afford a loss of jobs in the single-use plastic manufacturing industry. The consideration of this aspect in the paper and whether such challenges can be overcome is important given the economic downturn being faced by South Africa currently.

However, whilst these challenges may exist, the conclusion is that regulating the manufacture and use of single-use plastic in South Africa is **not** a waste of time. This is quite simply because the scourge of plastic waste is not an issue that we can continue to ignore nationally or globally. It will have a devastating effect on our environment and it is imperative that we all apply our minds to how government, business and individuals can best deal with the problem before it is too late.

---

<sup>1</sup> Act 107 of 1998.

### *Acronyms*

AU	African Union
CIEL	Centre for International Environmental Law
DEA	Department of Environmental Affairs
ECA	Environment Conservation Act 73 of 1989
EIA	Environmental Impact Assessment
EPR	Extended Producer Responsibility
EU	European Union
MINMEC	Minister and Members of Executive Council Committee
NEMA	National Environmental Management Act 107 of 1998
NEM: WA	National Environmental Management: Waste Act, Act 59 of 2008
SADC	Southern African Development Community
UN	United Nations
WSSD	World Summit on Sustainable Development

## Chapter 1: Introduction

### 1.1 Background

Plastic is a popular material for packaging. It includes polystyrene, which is a synthetic plastic and which, since its discovery has been used in the food industry extensively as a result of its low cost and light weight. Plastic is also easy to mould which makes it useful in food packaging where products such as fragile fruits need to be appropriately packaged. Single-use plastics, often also referred to as disposable plastics, are commonly used for plastic packaging and include items intended to be used only once before they are thrown away or recycled. These include, among other items, grocery bags, food packaging, bottles, straws, containers, cups and cutlery.<sup>2</sup>

Due to the increase in the popularity of plastic as packaging for food and personal care products, plastic waste has grown exponentially over recent years. This is problematic due to the resultant pollution. The UN indicates that nearly 50% of plastic waste generated is from packaging.<sup>3</sup> It is estimated that 80% of marine pollution comprises plastic waste and because it can break up easily it is often ingested by marine life<sup>4</sup>. There are also a number of pollutants contained in plastic which make its ingestion by marine life and subsequently humans dangerous<sup>5</sup>.

---

<sup>2</sup> UNEP 'Single-Use Plastics: A Roadmap for Sustainability'(2018) at page 14.  
[https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic\\_sustainability.pdf](https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic_sustainability.pdf).

<sup>3</sup> UNEP 'Single-Use Plastics: A Roadmap for Sustainability'(2018).  
[https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic\\_sustainability.pdf](https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic_sustainability.pdf).

<sup>4</sup> UNEP 'Marine plastic debris and microplastics – Global lessons and research to inspire action and guide policy change'. (2016) United Nations Environment Programme, Nairobi.  
<http://wedocs.unep.org/handle/20.500.11822/7720>.

<sup>5</sup> UNEP 'Marine plastic debris and microplastics – Global lessons and research to inspire action and guide policy change'. (2016) United Nations Environment Programme, Nairobi.  
<http://wedocs.unep.org/handle/20.500.11822/7720>.



## 1.2 *Statement of the problem*

Erik Solheim: Head of UN Environment stated that ‘Plastic is not the problem, it is what we do with it.’<sup>6</sup> In the South African context this is indeed the case as we tend to deal with plastic waste so poorly. It is disposed of recklessly by littering and where it does make it to landfill sites; it is then not dealt with appropriately<sup>7</sup>. It is therefore submitted that in South Africa it may be that plastic is the problem. The complete or at least partial banning thereof through regulation may be therefore be the only possible solution.

The problem in South Africa in the first instance is a lack of education regarding the dangers plastic poses to the environment. Due to this and a failure by South Africans to prioritise and take pride in our surrounding environment, plastic is discarded as litter. There is also a perception that waste management is the responsibility of the state with many believing that it is the state’s responsibility to clean up after them.<sup>8</sup> However, even where it is properly disposed of, we also face the problem of many mismanaged or incapacitated municipalities which results in non-existent or inadequate waste collection<sup>9</sup>. Plastic waste then makes its way through wind or water dispersal into areas where it can lie for decades due to its non-biodegradable nature.

Disposing of plastic waste at landfills is also problematic for a number of reasons. Firstly, plastic is lightweight and much of it is blown off landfill sites and into water sources or other areas in the environment. Secondly, most plastic does not biodegrade. It breaks down into

---

<sup>6</sup> UNEP ‘Single-Use Plastics: A Roadmap for Sustainability’(2018) at page I (Foreword).

[https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic\\_sustainability.pdf](https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic_sustainability.pdf).

<sup>7</sup> Department of Environmental Affairs ‘South Africa State of Waste. A report on the state of the Environment’ (2018). Department of Environmental Affairs, Pretoria at page 13.

<http://sawic.environment.gov.za/documents/8635.pdf>

<sup>8</sup> Department of Environmental Affairs ‘South Africa State of Waste. A report on the state of the Environment’ (2018). Department of Environmental Affairs, Pretoria at page 13.

<http://sawic.environment.gov.za/documents/8635.pdf>

<sup>9</sup> UNEP ‘Single-Use Plastics: A Roadmap for Sustainability’(2018) at page 10.

[https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic\\_sustainability.pdf](https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic_sustainability.pdf).

micro plastic and therefore continues to exist in the environment for many years to come, is then ingested by animals or ends up in streams, rivers or storm water systems. Badly resourced and managed landfills which are the norm in many local municipalities in South Africa<sup>10</sup> mean that not only is waste at landfill sites poorly managed but uncontrolled burning at landfill sites results in additional pollution problems. It is estimated that 10-12% of plastic at landfill sites is burnt and this releases toxic gasses into the environment including Dioxins, Furans, Mercury and Polychlorinated Biphenyls. In addition it is estimated that landfill burning contributes to approximately 20% of Green House Gasses.<sup>11</sup>

Expanded polystyrene foam (polystyrene) which is a popular type of packaging in the food industry can take thousands of years to break down and is particularly problematic when ingested by animals or humans given its toxicity<sup>12</sup>.

A potential solution to eradicating plastic waste was thought to be incineration but plastics contain toxins which when incinerated are released into the atmosphere as toxic gases thus causing air pollution. Polystyrene for example contains the toxic chemicals known as styrene and benzene which are very toxic when ingested by humans and are primary causes of respiratory diseases.<sup>13</sup>

Whilst many believe that the only solution to plastic waste is to recycle it, this too is problematic. The notion that some plastic is biodegradable or can be recycled into useful products is correct but this is true only when it is heated at very high temperatures in order to

---

<sup>10</sup> Department of Environmental Affairs 'South Africa State of Waste. A report on the state of the Environment' (2018). Department of Environmental Affairs, Pretoria at page 13.

<http://sawic.environment.gov.za/documents/8635.pdf>

<sup>11</sup> Rinku Verma et al. 'Toxic Pollutants from Plastic Waste' (2016) 35 *Procedia Environmental Sciences* at page 702.

<sup>12</sup> UNEP 'Single-Use Plastics: A Roadmap for Sustainability' (2018) at page 12.

[https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic\\_sustainability.pdf](https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic_sustainability.pdf).

<sup>13</sup> Centre for International Environmental Law 'Plastic & Climate – The Hidden Costs of a Plastic Planet' (2019)

[www.ciel.org/plasticandclimate](http://www.ciel.org/plasticandclimate).

melt and mould it into the new product. The exposure of the plastic to these high temperatures also causes the release of toxic gases into the environment.<sup>14</sup>

Manufacturing plastic products from scratch is also cheaper than recycling plastic and therefore there is very little incentive for manufacturers to recycle plastic. There must also be a market for the product once it has been recycled. Technology to recycle effectively will not be developed unless there is a real market for the recycled products. As such instead of being recycled, products are often down-cycled to be used in alternative applications. This then does not solve the problem of the need for the original product which is then produced from scratch.<sup>15</sup>

It is therefore not surprising that current thinking is that the only solution to the scourge of plastic waste is to implement bans on the use of single-use plastics, which includes most plastics used in food packaging. Recently in Europe and parts of the USA there has been regulation with a view to achieving a total ban of the use of such single use plastics<sup>16</sup>. In Africa, Rwanda and Kenya have led the charge in this regard with both countries having implemented total and partial bans on plastic bags respectively.<sup>17</sup>

In South Africa however there is currently little regulation of single use plastic. Principles in NEMA are broad and state that pollution and degradation of the environment are to be avoided ‘....or where it cannot be altogether avoided, [to be] minimised and reused or

---

<sup>14</sup> Discussed in more detail in paragraph 2.2.1 and see

R Verma et al. ‘Toxic Pollutants from Plastic Waste’ (2016) 35 *Procedia Environmental Sciences* at page 702.

<sup>15</sup> L Miller et al ‘Challenges and Alternatives to Plastic Recycling’ (2014) *Materials* 7 at page 5887.

<sup>16</sup> Institute European Environmental Policy (IEEP) ‘Single Use Plastics’ (2016).

[https://ieep.eu/archive\\_uploads/2128/IEEP\\_ACES\\_Product\\_Fiche\\_Single\\_Use\\_Plastics\\_Final\\_October\\_2016.pdf](https://ieep.eu/archive_uploads/2128/IEEP_ACES_Product_Fiche_Single_Use_Plastics_Final_October_2016.pdf).

<sup>17</sup> Kenya brings in world’s toughest plastic bag ban: four years jail or \$40,000 fine (2017). The Guardian, 28 August. <https://www.theguardian.com/environment/2017/aug/28/kenya-brings-in-worlds-toughest-plastic-bag-ban-four-years-jail-or-40000-fine>.

K Fullerton ‘Reflecting on Rwanda’s plastic bags ban’(2014). *International Development Journal*. <https://idjournal.co.uk/2017/04/24/reflecting-rwandas-plastic-bags-ban/>.

recycled where possible and otherwise disposed of in a responsible manner'<sup>18</sup>. There is no control of plastic pollution specifically as this falls under control of general waste which is regulated by the National Environmental Management: Waste Act<sup>19</sup>.

The best attempt at dealing with the problem head-on to date was the promulgation of the Plastic Bag Regulations<sup>20</sup> which came into effect on the 9<sup>th</sup> May 2003. The plastic bag has seemingly been the starting point for dealing with plastic waste by most countries. This is because in its most basic form it is not reusable and comprises one of the most dangerous single use plastics there is. However, unlike in other countries<sup>21</sup>, the 2003 regulations did not impose an outright ban on the use of plastic bags but merely attempted to regulate them by imposing a minimum thickness for bags and imposing a levy on retailers per bag used. The minimum thickness requirement was presumably in an attempt to ensure that these plastic bags were not single-use but could be used again. The levy imposed on retailers was passed on to the consumer in the hope that it would discourage the use of plastic bags or consumers would re-use the thicker plastic bags. Research indicates that 16 years on, the South African public has merely become habituated to paying for plastic bags and their use has not diminished with any significance.<sup>22</sup> A look around at how our urban and rural areas are littered with single use plastics means the pollution problem has continued unabated.

The regulation of single-use plastic needs to be a holistic approach which encompasses the life cycle from manufacture to sale to use and disposal of single-use plastic.

---

<sup>18</sup> Section 2(4)(a)(iv).

<sup>19</sup> Act 59 of 2008.

<sup>20</sup> Gazette No. 7548 in Government Gazette No. 23393 dated 9 May 2002.

<sup>21</sup> See discussion on bans implemented in Kenya and Rwanda in paragraph 2.4.2. hereunder.

<sup>22</sup> J Dikgang, A Leiman, and M Visser 'Analysis of the plastic-bag levy in South Africa' (2012) 66 *Resources, Conservation and Recycling* 59-65.

### **1.3     *Research Questions***

Is the regulation of single-use plastic in South Africa a waste of time?

- a. What are the dangers of single-use plastic to the environment?
- b. What is the current legislative regime in South Africa relating to single-use plastic and plastic waste?
- c. What laws have been successful in foreign jurisdictions to curb plastic pollution?
- d. What are the challenges South Africa faces with regard to promulgation and enforcement of legislation banning single-use plastics?
- e. Are there environmental management alternatives to regulation of single-use plastic?
- f. Will the regulation of single-use plastic in South Africa be capable of implementation?

### **1.4     *Research Methodology***

This dissertation is a result of a desktop study of the literature available with a comparative analysis of legislation that has thus far been implemented in South Africa and in selected other countries.

The study considers the range of material written to date as well as existing legislation nationally and internationally pertaining to single-use plastic and plastic waste.

The comparative research will provides insight into foreign law pertaining to single-use plastic and identify certain problems and possible solutions for consideration in the drafting and implementation of our own legislation. In comparing our current legislative regime with that of foreign jurisdictions, the legislative regime in South Africa relating to single-use plastics is considered and the gaps pertaining thereto identified. The paper then makes possible recommendations of how to improve our law whilst taking into account lessons learnt by foreign jurisdictions that have already introduced laws to partially or totally ban single-use plastic.

The European Union is a political and economic union representing a number of foreign jurisdictions and recent measures taken by it to curb the use of single-use plastics will be

considered. It follows a number of foreign jurisdictions to introduce partial or total bans on certain types of single-use plastic. As recently as June of this year, the European Parliament and Council passed Directive<sup>23</sup> that completely bans certain types of single-use plastic. It contains realistic directives and targets for its members and many of the proposals may be appropriate for South Africa to consider given the categorisation of single-use plastics and measures to be implemented in accordance with this categorisation as well as the phased implementation proposal<sup>24</sup>.

The second and third jurisdictions considered are Rwanda and Kenya. Rwanda and Kenya provide a useful comparison in that they have implemented several measures to curb single-use plastic pollution including legislation that has completely banned plastic bags. They are also both developing nations on our continent with comparable socio-economic conditions to South Africa.

## **1.5 Structure**

In order to logically address the research questions, the paper has been divided into chapters as follows:

- Chapter 1 – Chapter 1 introduces the topic and research problem which deals with the scourge of single-use plastic both within South Africa and globally. There has been a growing awareness of the problem of plastic waste and for a number of years various forms of regulation have been introduced in different countries in an attempt at either a partial or total ban of single-use plastic. The fact that single-use plastic remains a global problem is indicative of the fact that little of this regulation has had the desired effect. The regulation thereof is not however a simple matter with legislation proving either ineffective for lack of enforcement or having resulted in only a partial ban of only certain plastic products; Chapter 1 also sets out the research questions that will be addressed and provides the research methodology that will be followed to attempt

---

<sup>23</sup> Single-Use Plastics Directive — Directive (EU) 2019/904 of the European Parliament and of the Council.  
<https://eur-lex.europa.eu/eli/dir/2019/904/oj>.

<sup>24</sup> This is further discussed in paragraph 2.3.1 hereunder.

to analyse whether the regulation of single-use plastic in South Africa is indeed a waste of time.

- Chapter 2 – This chapter attempts to define the term single-use plastic and provides an overview of the impacts that it has on the environment to show why its regulation is so critical both nationally and internationally. It then gives an overview of the current legislative regime in South Africa relating to single-use plastic and plastic waste in general which will illustrate that the current legislative regime is both inadequate and not effectively enforced. There is then a comparison between the South African legislative regime and that of foreign jurisdictions with regard to curbing plastic pollution.
- Chapter 3 – Chapter 3 considers the challenges South Africa faces with regard to the promulgation and enforcement of legislation banning single-use plastics and attempts to answer the question whether in fact single-use plastic is capable of regulation in South Africa.
- Chapter 4 – This chapter provides recommendations to address the regulation of single-use plastic in South Africa by proposing both legislative and administrative mechanisms for the effective regulation of single-use plastic. It also considers the challenges relating to enforcement and requirements that need to be met for effective enforcement to take place.
- Chapter 5 – Chapter 5 sets out the conclusion of the dissertation by firstly confirming that the regulation of single-use plastic in South Africa is currently a waste of time and secondly suggesting what mechanisms would need to be put in place in future if we are to ensure that such regulation was in fact effective.

## **Chapter 2: Regulation of single-use plastic**

The purpose of this paper is to consider whether the regulation of single-use plastic in South Africa is a waste of time. In order to engage in such an assessment, it is necessary to understand what constitutes single-use plastic as well as the dangers single-use plastics pose to the environment so as to establish the necessity for such regulation.

### **2.1 Definition of single-use plastic**

As the phrase suggests, single-use plastics are produced to be used only once. The Institute of European Environmental Policy (IEEP) notes that the most popular items of single-use plastic include drink bottles, food wrappers, plastic bottle caps, straws, stirrers, plastic bags and plastic lids<sup>25</sup>. These larger plastic items are known as macroplastic. The European Union has defined single-use plastic products as

“a product that is made wholly or partly from plastic and that is not conceived, designed or placed on the market to accomplish, within its lifespan, multiple trips or rotations by being returned to a producer for refill or re-used for the same purpose for which it was conceived.”<sup>26</sup>

Microplastics are much smaller in size and are divided into primary and secondary microplastics. Primary microplastics are produced for specific requirements such as microbeads that are used in the manufacture of cosmetics. Secondary microplastics are bits of plastic that have been broken down from larger pieces. This is as a result mainly of exposure to the sun which makes the plastic brittle and vulnerable to fragmentation. This is to a large extent why plastic no longer breaks down when it is immersed in water – it is no longer exposed to the sun and so even “biodegradable” plastic products fail to break down.<sup>27</sup>

---

<sup>25</sup> Institute European Environmental Policy (IEEP) ‘Single Use Plastics’ (2016). <https://ieep.eu/>.

<sup>26</sup> Article 3 of the Single-Use Plastics Directive — Directive (EU) 2019/904 of the European Parliament and of the Council. <https://eur-lex.europa.eu/legal-content>.

<sup>27</sup> Institute European Environmental Policy (IEEP) ‘Single Use Plastics’ (2016). <https://ieep.eu/>.



## 2.2 Impacts of single-use plastic

### 2.2.1 Environmental impacts

The environmental impacts of single-use plastic are numerous. Many of the impacts are obvious from the visual degradation that plastic litter creates on land and in water sources. The Southern African Development Community has as one of its key objectives the promotion of sustainable development and socio-economic development amongst the member states of Southern Africa.<sup>28</sup> The SADC Secretariat has noted that the SADC region has poor waste management practices and this leads to environmental degradation as well as the spread of disease by vectors that breed in this waste. The Secretariat further noted that the unattractiveness of plastic waste in natural areas deters tourists from visiting which has an economic impact on member states.<sup>29</sup> Most recently the impact of plastic on climate change has been highlighted<sup>30</sup> which has compounded the threat that plastic poses to the environment. The African Union have recently stated that about 8.6 percent of all Sub-Saharan waste that is generated is plastic and it is expected to grow with continues urbanisation in Africa.<sup>31</sup>

Plastic affects many species including mammals, birds and marine animals that ingest or become entangled in plastic waste and often die from the effects thereof. Plastic waste also affects the habitats of many species either by pollution of the habitat or by species mistaking plastic objects for a place within which to lay eggs or nest. Plastic debris can cause damage to

---

<sup>28</sup> <https://www.sadc.int/about-sadc/overview/>

<sup>29</sup> SADC ‘SADC calls for improved waste management as the international community commemorates 2018 World Environment Day’ (2018) <https://www.sadc.int/news-events/news/sadc-calls-improved-waste-management-international-community-commemorates-2018-world-environment-day/>.

<sup>30</sup> Centre for International Environmental Law ‘Plastic & Climate – The Hidden Costs of a Plastic Planet’ (2019). <https://www.ciel.org/project-update/plastic-climate-the-hidden-costs-of-a-plastic-planet/>.

<sup>31</sup> J Cocker & S Kasner ‘Resource Recovery Plan for African Union’s Plastics’ *Environmental Law Insights* (2020).

<https://www.lexology.com/library/detail.aspx?g=902a1303-2472-480f-93ff-7cd02800fb86>.

sensitive environments particularly in the ocean where coral reefs are damaged with plastic waste.<sup>32</sup> In a recent study conducted using three main South African beaches, Ushaka beach, South Beach and North beach it was established that materialist consumption has caused much of the plastic pollution. Seventy percent of beachgoers were aware that their consumption of plastic has a devastating effect on the environment and confirmed that they used reusable water bottles.<sup>33</sup>

An additional impact on the environment results when certain species may move habitat to escape plastic pollution as this may result in them moving out of the area in which they are naturally found into areas where they do not traditionally reside. The invasion of a new territory may have implications for other species residing in the new territory as well as the species that has sought to escape the polluted environment.<sup>34</sup>

It is however the impact that the plastic life cycle has on climate change that has recently grabbed the attention of environmentalists. In a recent report CIEL states that “by 2050, the greenhouse gas emissions from plastic could reach over 56 gigatons – 10-13 percent of the entire remaining carbon budget”<sup>35</sup>. In the first stage of the plastic lifecycle, fossil fuels must be extracted and transported which results in greenhouse gas emissions. There are further emissions during the refining and manufacture process. Thereafter in the management of plastic waste by either incineration or recycling there is further emission of gasses. Finally the impact continues once the plastic lands in our environment and starts to fragment and degrade. CIEL points out that whilst such studies are in their infancy, it has been established that as plastic breaks down it releases gasses such as methane which are extremely harmful to

---

<sup>32</sup> Centre for International Environmental Law ‘Plastic & Climate – The Hidden Costs of a Plastic Planet’ (2019). <https://www.ciel.org/project-update/plastic-climate-the-hidden-costs-of-a-plastic-planet/>.

<sup>33</sup> M Van Rensburg, A Nkomo, T Dube ‘The plastic era; social perceptions towards single-use plastic consumption and impacts on the marine environment in Durban, South Africa’ (2020) *Applied Geography* 114:102132 page 5.

<sup>34</sup> R Thompson, C Moore, F vom Saal, S Swan ‘Plastics, the environment and human health: current consensus and future trends’ (2009) *Philos Trans R Soc Lond B Biol Sci* 364 (1526) at page 2157.

<sup>35</sup> Centre for International Environmental Law ‘Plastic & Climate – The Hidden Costs of a Plastic Planet’ (2019). <https://www.ciel.org/project-update/plastic-climate-the-hidden-costs-of-a-plastic-planet/>.

humans and these are thought to increase during the degradation process, contributing to climate change.<sup>36</sup>

### 2.2.2 Health impacts

Plastic waste has a tendency to block waterways, storm water pipes and drains and can often result in blockages where water may stagnate and water borne diseases then breed. Discarded plastic containers filled with water or blocked pipes and waterways become breeding grounds for mosquitoes and flies that may also pose a health risk to humans.<sup>37</sup>

The effect of microplastics remains uncertain but it is of major concern that they have been found in many marine species and are then ingested when humans eat these forms of seafood. Whilst the actual effect on the health of humans will depend on the amount of contaminated seafood ingested, scientists remain concerned with the long term effects exposure to the chemicals found in plastics may have on the human body.<sup>38</sup>

Styrofoam or polystyrene products which also fall under single-use plastic<sup>39</sup> contain carcinogenic chemicals such as styrene and benzene and are toxic when ingested, potentially damaging the nervous systems, lungs and reproductive organs.<sup>40</sup>

The recycling of plastic poses its own challenges. Whilst many punt this as a solution to plastic waste, to recycle plastic into useful products requires it to be melted and remoulded. The heating of plastic releases toxic gases like Dioxins, Furans, Mercury and Polychlorinated Biphenyls into the atmosphere and these gasses are harmful to humans. They are known to

---

<sup>36</sup> Centre for International Environmental Law ‘Plastic & Climate – The Hidden Costs of a Plastic Planet’ (2019). <https://www.ciel.org/project-update/plastic-climate-the-hidden-costs-of-a-plastic-planet/>.

<sup>37</sup> UNEP ‘SINGLE-USE PLASTICS: A Roadmap for Sustainability’ (2018) at page 14.

<sup>38</sup> M Smith, D Love, C Rochman, R Neff ‘Microplastics in Seafood and the Impacts on Human Health’ (2018) *Curr Environ Health Rep.* 5 (3) pp.375–386.

<sup>39</sup> UNEP(2018). SINGLE-USE PLASTICS: A Roadmap for Sustainability at page 14.

<sup>40</sup> Rinku Verma et al. ‘Toxic Pollutants from Plastic Waste’ (2016) 35 *Procedia Environmental Sciences* 701 – 708.

increase the risk of heart disease, aggravating certain respiratory ailments such as asthma and emphysema and causing rashes, nausea or headaches.<sup>41</sup>

### 2.2.3 Socio-economic impacts

The socio-economic impacts of plastic pollution are also important to consider. Loss of animal species and marine life in particular creates a problem for those that rely on fishing for a livelihood. Many consumers are wary of eating seafood due to the hype created around the contamination of marine creatures by ingestion of microplastic and elect not to consume certain types of seafood thus contributing to the demise of this industry. Tourism may also be reduced in areas where there is plastic litter as tourists prefer to seek out pristine environments to visit.<sup>42</sup>

The cost of having to take action to clean up plastic pollution is also a factor to be considered. The Ocean Conservancy reported that in 2015, 1 024 470 plastic bottles were collected in beach clean-ups across the globe.<sup>43</sup> The recent flooding in Durban, KwaZulu-Natal resulted in a massive amount of plastic waste being washed downstream and into the harbour and onto the surrounding beaches resulting in a cleanup operation that required substantial financial and human resources.

“The combined catchment area of the rivers, canals and storm-water drainage systems that drain into the port is over 200 square kilometres. The unfortunate reality is the port waters are on the receiving end of the large volume of litter.”<sup>44</sup>

---

<sup>41</sup> Rinku Verma et al. ‘Toxic Pollutants from Plastic Waste’ (2016) 35 *Procedia Environmental Sciences* 701 – 708.

<sup>42</sup> World Economic Forum (2017) The Travel & Tourism Competitiveness Report : Paving the way for a more sustainable and inclusive future at page 6-7.

[http://www3.weforum.org/docs/WEF\\_TTCR\\_2017\\_web\\_0401.pdf](http://www3.weforum.org/docs/WEF_TTCR_2017_web_0401.pdf).

<sup>43</sup> Ocean Conservancy (2016) 30<sup>th</sup> Anniversary International Coastal Clean Up- Annual Report. <https://oceanconservancy.org/wp-content/uploads/2017/04/2016-Ocean-Conservancy-ICC-Report.pdf>.

<sup>44</sup> IOL News (2019) Comments by Acting Port Manager Nokuzola Nkowane : Durban Starts the Massive Clean Up 24 April 2019. <https://www.iol.co.za/ios/news/durbanstorm-port-of-durban-starts-the-massive-clean-up-21916488>.

Operations in ports are hampered when such volumes of plastic and other litter block the waters and therefore cleanup operations are essential but costly.<sup>45</sup>

When considering the socio-economic impact of single-use plastic one must also consider the benefits it provides in terms of job creation in the manufacturing industry as well as revenue generation in this sector. The impact that a ban on plastic could have on jobs in the manufacturing and packaging industries is significant.<sup>46</sup> Nhamo notes that the Plastic Bag Regulations<sup>47</sup> implemented in South Africa had a definite impact on jobs in the manufacturing sector. Three months after the regulations entered into force, an estimated 500 plus jobs had been lost and by mid 2004 this number had increased to 1000 jobs lost.<sup>48</sup> South Africa can ill afford such job losses in a country where unemployment is extraordinarily high.

## **2.3 The current legislative regime in South Africa relating to single-use plastic and plastic waste**

Having established the danger single-use plastic poses to both the environment and human health, it is necessary to consider whether single-use plastic waste is currently adequately regulated within South Africa and whether in fact there is a need for further regulation.

### **2.3.1 International Legal Instruments**

There are a number of international legal instruments that South Africa is a signatory to that provide the framework for ensuring that we address both land based and marine pollution.

---

<sup>45</sup> IOL News (2019) Comments by Acting Port Manager Nokuzola Nkowane : Durban Starts the Massive Clean Up 24 April 2019. <https://www.iol.co.za/ios/news/durbanstorm-port-of-durban-starts-the-massive-clean-up-21916488>

<sup>46</sup> This is discussed in further detail in chapter 3 when considering the challenges to the regulation of single-use plastic in South Africa.

<sup>47</sup> Plastic Bag Regulations Gazette No. 7548 in Government Gazette No. 23393 dated 9 May 2002.

<sup>48</sup> G Nhamo 'Regulating Plastics Waste, Stakeholder Engagement and Sustainability Challenges in South Africa'(2008) 19:1 *Urban Forum* at page 14.

The United Nations Convention on the Law of the Sea<sup>49</sup> obliges all states to address land and marine based sources of pollution. The Declaration on Environment and Development<sup>50</sup> and Agenda 21<sup>51</sup> were both adopted at the Rio Earth Summit<sup>52</sup> and contain guidance on the principles of sustainable development. Control of pollution and the protection of biodiversity from sources of pollution were two of the goals of these instruments.

The Johannesburg Plan of Implementation,<sup>53</sup> the Sustainable Development Goals<sup>54</sup> and the United Nations Resolution 235<sup>55</sup> all contain provisions calling for the reduction of pollution and waste by proposing that states adopt national legislation including incentives and penalties to curb such pollution.

More recently, SADC of which South Africa is a member state, has stated that whilst many members have outlawed or imposed levies on plastic bags, this is not enough and member states must advocate plastic packaging that can be produced and re-used which is referred to as “produce-use-reuse” as opposed to those that are produced and disposed of referred to as “produce-use-dispose”. In other words a rejection of single-use plastic.<sup>56</sup>

In 2015 the African Union Assembly adopted what is known as Agenda 2063 which sets out a strategic framework for amongst other things sustainable development. Agenda 2063 has fourteen “flagship” projects. One of these is to “Act with a sense of urgency on climate

---

<sup>49</sup> United Nations Convention on the Law of the Sea (UNCLOS), 1982. Ratified by South Africa 23 December 1997.

<sup>50</sup> Adopted at the 1992 UN Conference on Environment and Development (the Rio Earth Summit). Contains 27 principles of international environmental law.

<sup>51</sup> Agenda 21 adopted at the Rio Earth Summit in 1992 and known as a “blueprint” for sustainable development.

<sup>52</sup> The Rio Earth Summit is the popular name for the UN Conference on Environment and Development that took place in Rio from 3-14 June 1992.

<sup>53</sup> Johannesburg Plan of Implementation adopted at the 2002 World Summit on Sustainable Development.

<sup>54</sup> United Nations General Assembly Resolution 70/1 :Sustainable Development Goals adopted on 21 October 2015.

<sup>55</sup> United Nations General Assembly Resolution 235 adopted on 23 December 2015.

<sup>56</sup> <sup>56</sup> SADC ‘SADC calls for improved waste management as the international community commemorates 2018 World Environment Day’ (2018) <https://www.sadc.int/news-events/news/sadc-calls-improved-waste-management-international-community-commemorates-2018-world-environment-day/>.

change and the environment.”<sup>57</sup> It is suggested that the AU needs to consider which plastic should actually enter Africa and whether it suits the goals set out in Agenda 2063.<sup>58</sup>

The “Durban Declaration on taking action for environmental sustainability and prosperity in Africa” was agreed to in November 2019 at the African Ministerial Conference on the Environment. At the conference Ministers representing various African countries agreed to not only support global action being taken to curb plastic pollution but also agreed to look at a new global agreement on plastic pollution that specifically looks at a comprehensive approach to the full life-cycle of plastic.<sup>59</sup> In this regard, paragraph 29 of the “Durban Declaration” states that”

“We commit ourselves to supporting global action to address plastic pollution, which will require further work in order to engage more effectively on global governance issues relating to plastic pollution, including reinforcing existing agreements or the option of a new global agreement on plastic pollution that takes a comprehensive approach to addressing the full life cycle of plastics, from production and design to waste prevention and management, while ensuring coherence among and coordination of activities undertaken by existing regional and international instruments while highlighting the importance of technology transfer, research on alternatives to plastic, and adequate financing to enable African countries to deal with plastic pollution”.<sup>60</sup>

The Durban Declaration is an important document as it is the first time there has been a continent-wide policy with a specific focus on plastic pollution and the ‘circular economy’.<sup>61</sup> A circular economy is one which moves away the “end-of-life concept” and replaces it with

---

<sup>57</sup> African Union ‘Agenda 2063’ <https://au.int/en/agenda2063/flagship-projects>.

<sup>58</sup> J Cocker & S Kasner ‘Resource Recovery Plan for African Union’s Plastics’ *Environmental Law Insights* (2020).<https://www.lexology.com/library/detail.aspx?g=902a1303-2472-480f-93ff-7cd02800fb86>.

<sup>59</sup> African Ministerial Conference on the Environment ‘Durban Declaration’ (2019) [https://wedocs.unep.org/bitstream/handle/20.500.11822/30732/AMCEN\\_17Declaration.pdf?sequence=7](https://wedocs.unep.org/bitstream/handle/20.500.11822/30732/AMCEN_17Declaration.pdf?sequence=7)

<sup>60</sup> African Ministerial Conference on the Environment ‘Durban Declaration’ (2019) at page 5. [https://wedocs.unep.org/bitstream/handle/20.500.11822/30732/AMCEN\\_17Declaration.pdf?sequence=7](https://wedocs.unep.org/bitstream/handle/20.500.11822/30732/AMCEN_17Declaration.pdf?sequence=7)

<sup>61</sup> J Cocker & S Kasner ‘Resource Recovery Plan for African Union’s Plastics’ *Environmental Law Insights* (2020).<https://www.lexology.com/library/detail.aspx?g=902a1303-2472-480f-93ff-7cd02800fb86>.

the concept of regeneration and restoration moving rather toward renewable energy and the elimination of waste.<sup>62</sup>

### 2.3.2 NEMA and NEM: Waste Act

Kidd notes that there is a “plethora of legislation in South Africa dealing with pollution and waste.”<sup>63</sup> However this dissertation considers the specific legislation dealing with plastic waste which falls into the category of solid waste.

NEMA provides a number of provisions that can be applied to waste. Most, if not all of the NEMA principles<sup>64</sup> can be applied in the context of the regulation and management of plastic waste. These principles include the precautionary principle which advocates the avoidance of pollution and degradation of the environment and where it cannot be avoided then it must be minimised, rectified or remedied. The polluter pays principle also finds application and states that those who pollute should bear the cost of managing the pollution to prevent damage to humans and the environment.<sup>65</sup> Most notably the principle of “sustainable development” includes the notion “that waste is to be avoided, or where it cannot be altogether avoided, minimised and re-used or recycled where possible and otherwise disposed of in a responsible manner”.<sup>66</sup>

The so called “environmental right” is contained in Section 24 of the Constitution<sup>67</sup> and guarantees all the right to an environment that is not harmful to their health and well-being.<sup>68</sup> However the obligations imposed on the state to protect the environment are to be seen within the context of this principle of sustainable development as the task is to achieve this

---

<sup>62</sup> World Economic Forum ‘From linear to circular – Accelerating a proven concept’ (2014) at page 15.

[http://www3.weforum.org/docs/WEF\\_ENV\\_TowardsCircularEconomy\\_Report\\_2014.pdf](http://www3.weforum.org/docs/WEF_ENV_TowardsCircularEconomy_Report_2014.pdf).

<sup>63</sup> M Kidd *Environmental Law* (Cape Town Juta 2008) at page 143.

<sup>64</sup> Section 2 of the National Environmental Management Act, Act 107 of 1998.

<sup>65</sup> M Kidd *Environmental Law* (Cape Town Juta 2008) at pages 4-11.

<sup>66</sup> Section 2(4)(a) of the National Environmental Management Act, Act 107 of 1998.

<sup>67</sup> Constitution of the Republic of South Africa (Act 108 of 1996).

<sup>68</sup> Section 24(a) of the Constitution of the Republic of South Africa, 1996..



while promoting “justifiable economic and social development”.<sup>69</sup> Kidd states that “an understanding of the concept of sustainable development is therefore vital for an appreciation of the role of environmental law in modern society”.<sup>70</sup> The pursuit of socio-economic development by developing nations such as South Africa is however often an impediment to the attainment of sustainable development.<sup>71</sup>

The duty of care set out in Section 28<sup>72</sup> may also be relevant in the context of plastic waste pollution as it provides that any person who causes or has caused or may in the future cause pollution or degradation to the environment must take reasonable measures to prevent or rectify such pollution or degradation. Its significance for plastic waste lies in the fact that it applies not only to the person who disposes of the waste in an irresponsible manner so as to cause pollution but it also applies to the originator.<sup>73</sup>

NEMA also contains a provision empowering the Minister to make regulations “prohibiting, restricting and controlling activities which are likely to have a detrimental effect on the environment;<sup>74</sup> dealing with the production, prohibition, control, sale, distribution, import or export of products that may have a substantial detrimental effect on the environment.”<sup>75</sup> These regulatory powers afforded the Minister provide a basis for enacting legislation to regulate single-use plastic.

The Waste Act<sup>76</sup> falls under the umbrella of NEMA and thus the provisions in NEMA must be read with those of NEM: WA. The so called NEMA principles which are outlined in

---

<sup>69</sup> Section 24(b) of the Constitution of the Republic of South Africa, 1996.

<sup>70</sup> M Kidd *Environmental Law* (Cape Town Juta 2008) at page 18.

<sup>71</sup> This is discussed in further detail in chapter 3 when considering the challenges to the regulation of single-use plastic in South Africa.

<sup>72</sup> Section 28 of the National Environmental Management Act, Act 107 of 1998.

<sup>73</sup> The originator of plastic pollution would be the manufacturer of the single-use plastic product and therefore this duty is linked to that of extended user responsibility discussed further hereunder.

<sup>74</sup> Section 44(1)(aA) of NEMA inserted by section 2 of the NEMA Amendment Act 56 of 2002

<sup>75</sup> Section 44(1)(aB) of NEMA inserted by section 21(a) of the NEMA Amendment Act 30 of 2013

<sup>76</sup> National Environmental Management: Waste Act, Act 59 of 2008

section 2 of NEMA also apply.<sup>77</sup> The waste hierarchy is a significant feature of NEM: WA which was drafted to give effect to the White Paper on Integrated Pollution and Waste Management.<sup>78</sup> The waste hierarchy is an internationally accepted concept that originates from the Framework Directive of 1975.<sup>79</sup> The hierarchy proposes that we firstly try to avoid the generation of waste and where we cannot, we reduce, re-use recycle or recover it. Oelofse and Godfrey argue however that successfully implementing this waste hierarchy is dependent on the way in which we define waste and the legal interpretation thereof by both government and industry.<sup>80</sup> They further suggest that if we are clear on what is waste and what may be recovered, recycled or re-used, we are then in a better position to regulate waste appropriately. It is submitted that this is particularly true when it comes to single-use plastic which by its very nature and definition should be defined as waste as it cannot be reused nor economically recycled.<sup>81</sup>

A number of other provisions in NEM: WA may be applicable to single-use plastic waste. It is submitted that section 14 which provides the Minister with the power to declare a particular waste a “priority waste” may be useful in the management of single-use plastic waste as it might be argued that it has reached such an alarming level where it does indeed pose a threat to health, well-being and the environment.<sup>82</sup> The Minister has the power in terms of section 14 to declare the waste management measures that must be taken in respect of such waste and will result in it being prohibited for import, manufacture, processing, sale or export unless it complied with specified requirements.<sup>83</sup> This however has a number of

---

<sup>77</sup> Refer to the discussion on the NEMA principles at the start of the paragraph above.

<sup>78</sup> GN227 in GG20978 of 17 March 2000.

<sup>79</sup> Council Directive 75/442/EEC on Waste (1975). *Official Journal of the European Communities*, L 194/39, 15 July 1975, subsequently amended by Council Directive 91/156/EEC.

<sup>80</sup> Oelofse, S.H.H. and Godfrey, L. Defining waste in South Africa: moving beyond the age of 'waste' (2008) 104 *SAJS* 242-246.

<sup>81</sup> This is further discussed in chapter 3 when considering the challenges to the implementation of legislation dealing with single-use plastic in South Africa.

<sup>82</sup> In terms of section 14 the Minister may only declare waste a “priority waste” where it poses a threat to health, well-being and the environment.

<sup>83</sup> Section 31 of the National Environmental Management: Waste Act, Act 59 of 2008.

implications for those involved in the manufacture, processing, sale, import and export of single-use plastic which ends up as waste.<sup>84</sup>

Extended producer responsibility (EPR) is a concept that has also been incorporated into NEM: WA as a regulatory mechanism.<sup>85</sup> Two types of EPR initiatives exist. The first is voluntary and depends on the cooperation of industry who typically initiates them. The second are initiated by government through regulatory means such as the Plastic Bag Regulations<sup>86</sup> which imposed a point of sale levy on plastic bags.<sup>87</sup> It is important to note however that before such an EPR programme, either voluntary or mandatory may be declared, the Minister must consult the Minister of Trade and Industry and Producers who will be affected by the notice.<sup>88</sup>

The Act also provides for the Minister to require an industry to prepare an industry waste management plan where such an industry generates waste that affects more than one province.<sup>89</sup> This might be particularly useful for industries such as the hospitality industry that currently consume vast quantities of single-use plastic across South Africa.

The Minister also has the power to make regulations in terms of section 69 and as such specific regulations pertaining to the management of single-use plastic waste may be facilitated through NEM:WA.

The Consumer Protection Act<sup>90</sup> provides an obligation on producers and persons supplying any particular goods, or any components, remnants, containers or packaging to accept their return.<sup>91</sup> However it is submitted that this legislation also falls short of assisting with the

---

<sup>84</sup> This is further discussed in chapter 3 when considering the challenges to the implementation of legislation dealing with single-use plastic in South Africa.

<sup>85</sup> Section 18 of the National Environmental Management: Waste Act, Act 59 of 2008.

<sup>86</sup> Plastic Bag Regulations Gazette No. 7548 in GG 23393 dated 9 May 2002.

<sup>87</sup> The National Waste Management Strategy, 2010 at chapter 3.10.

<sup>88</sup> It is argued in the discussion on the Plastic Bag Regulations and in chapter 3 below that the impact of such programmes on stakeholders is one of the reasons they prove ineffective.

<sup>89</sup> Section 28 of the National Environmental Management: Waste Act, Act 59 of 2008.

<sup>90</sup> Consumer Protection Act, Act 68 of 2008

<sup>91</sup> Section 59(1) of the Consumer Protection Act, Act 68 of 2008.

regulation of single-use plastic in that firstly, the provision provides that national legislation must first prohibit its disposal into a common waste collection system (which our legislation currently does not) and secondly the provision does not deal with how the producer or supplier must then dispose of such goods returned by the consumer. The waste has therefore simply changed hands and its disposal remains problematic.

Whilst NEMA and NEM: WA theoretically contain some provisions that may regulate single-use plastic waste in South Africa, it will be argued that there are a number of challenges that have clearly prevented their effectiveness in curbing single-use plastic pollution.<sup>92</sup>

### **2.3.3 Plastic Bag Regulations**

Other than the general provisions set out in NEMA and NEM: WA there are no other specific legislative provisions dealing with single-use plastics in South Africa. Plastic bags fall under the definition of single-use plastics as they are often incapable of reuse due to their quality or not reused or recycled due to a lack of awareness of their environmental impact.<sup>93</sup> In 2002 the Plastic Bag Regulations<sup>94</sup> were promulgated in South Africa and have been the only specific piece of legislation enacted to date that deals with the regulation of single-use plastic.

The widespread utilisation of plastic bags is attributed to their cheapness and convenience to use. Historically, paper bags, cotton bags, baskets and clay pots were used for merchandise and glass and clay bottles were used for liquids. However these have disappeared almost entirely as single use plastics proved much cheaper as a means to carry and store merchandise.<sup>95</sup>

---

<sup>92</sup> This is further discussed in chapter 3 when considering the challenges to the implementation of legislation dealing with single-use plastic in South Africa.

<sup>93</sup> R Moharam, M Ali Al Maqtari 'The impact of Plastic Bags on the Environment' (2014) 2:4 *International Journal of Engineering Research and Reviews* at page 61.

<sup>94</sup> Plastic Bag Regulations Gazette No. 7548 in GG 23393 dated 9 May 2002.

<sup>95</sup> R Moharam, M Ali Al Maqtari 'The impact of Plastic Bags on the Environment' (2014) 2:4 *International Journal of Engineering Research and Reviews* at page 61.

The Plastic Bag Regulations<sup>96</sup> introduced in South Africa were in effect a compromise of acknowledging the detrimental effect single-use plastic bags have on the environment but taking cognisance of the fact that the socio-economic impact of banning plastic bags completely would invoke a major challenge from organised labour and the business sector.<sup>97</sup> They were a result of the government entering into negotiations with organised labour and industry that culminated in a Memorandum of Agreement being signed prior to their promulgation. The agreement provided for regulation of the minimum thickness of plastic bags, disclosure and transparency regarding the cost of plastic bags, regulation on the type and amount of ink to be used on plastic bags, promoting a market for recycled materials, imposing a levy to support recycling efforts and preventing the importation of plastic bags.<sup>98</sup>

The Plastic Bag Regulations<sup>99</sup> were implemented as part of an EPR programme.<sup>100</sup> The regulations were pioneering at the time in that they reflected a market-based response to the growing problem that thin plastic bags were posing in South Africa with over 8 million bags being recorded as used annually, many of these being inappropriately disposed of.<sup>101</sup> The Regulations did not ban the use of plastic bags completely but they impose a prohibition on the manufacturing, trade and commercial distribution of ‘plastic bags, made of plastic film’ for use in South Africa that have a wall thickness of less than 80 micrometers. There are three exceptions to this prohibition – plastic bags with a thickness between 30 and 80 micrometers that do not have (unless required by law) any printing, painting or ‘marks of any kind’; ‘bread bags’ of plastic film of a thickness of between 25 and 80 micrometers, provided that they

---

<sup>96</sup> Plastic Bag Regulations Gazette No. 7548 in Government Gazette No. 23393 dated 9 May 2002.

<sup>97</sup> E Witbooi ‘Plastic Bag Regulation in South Africa: Just a Load of Rubbish?’ (2003) 10:1 *SAJELP* at page 67-68 and See also Dikgang, Johane, Anthony Leiman, and Martine Visser ‘Analysis of the plastic-bag levy in South Africa at page 67-68.

<sup>98</sup> J Dikgang,, ALeiman, and MVisser ‘Analysis of the plastic-bag levy in South Africa’(2012) *Resources, Conservation and Recycling* 66:59-65 at page 59..

<sup>99</sup> Plastic Bag Regulations Gazette No. 7548 in *GG* 23393 dated 9 May 2002.

<sup>100</sup> The National Waste Management Strategy, 2010 at chapter 3.10.

<sup>101</sup> E Witbooi ‘Plastic Bag Regulation in South Africa: Just a Load of Rubbish?’ (2003) 10:1 *SAJELP* at page 67-68.

similarly do not have printing, painting or marks; and ‘shrinklene and flimsy bread bags made of plastic film.’<sup>102</sup>

The basis of the regulations<sup>103</sup> was twofold. Firstly they introduced the minimum specification for plastic bags in order that they would be capable of reuse and not only single-use. The intention of this was to try and lower plastic bag production as well as plastic bag waste by people reusing bags that they had already purchased. Secondly the regulations<sup>104</sup> introduced a levy per bag to try and reduce the consumption of plastic bags altogether. The levy that was introduced in 2003 was 46c for a 24-litre bag across all retailers.<sup>105</sup> It was hoped that by this consumers would either bring their thicker, stronger plastic bag each time they went shopping or feel the financial burden of having to purchase an additional bag and so resist doing so. It was envisaged that the cost of having to purchase a bag would encourage the use of alternative carriers (presumably those that were not plastic) or the reuse of the thicker, reusable plastic bags.<sup>106</sup>

Initially with their introduction, the regulations showed some success in the short term but over time their effectiveness has declined.<sup>107</sup> Consumers were sensitive to the cost of the bags when the regulations were first introduced but research has shown that consumers were not sensitive to price increases in the bags that have followed since 2003.<sup>108</sup> It is noted that as people became used to paying for plastic bags the demand for them once again increased and

---

<sup>102</sup> Regulation 2(2) – (4). ‘Mark’ is defined as ‘whether used in a compound with any other

word or not, includes any symbol, sign, drawing, design, badge, emblem, representation, heading, name, word, signature, letter or numeral, or any combination of two or more thereof’.

<sup>103</sup> Plastic Bag Regulations Gazette No. 7548 in Government Gazette No. 23393 dated 9 May 2002.

<sup>104</sup> Plastic Bag Regulations Gazette No. 7548 in Government Gazette No. 23393 dated 9 May 2002.

<sup>105</sup> J Dikgang,, ALeiman, and MVisser ‘Analysis of the plastic-bag levy in South Africa at page 1.

<sup>106</sup> J Dikgang,, A Leiman, and MVisser ‘Analysis of the plastic-bag levy in South Africa at page 2.

<sup>107</sup> J Dikgang, A Leiman, and M Visser ‘Analysis of the plastic-bag levy in South Africa at page 1.

<sup>108</sup> J Dikgang,A Leiman, and M Visser ‘Analysis of the plastic-bag levy in South Africa at page 8.

their consumption has continued to steadily increase. It is submitted that this is due to the fact that they are relatively cheap in comparison to a consumer's disposable income.<sup>109</sup>

Although the Regulations have been the only regulation of a single-use plastic product in South Africa, it is noted that they have not significantly reduced the plastic bag litter and plastic waste in general the country.<sup>110</sup> It is useful to reflect on the reasons why they have not been successful in order to assess whether further regulation of single-use plastic would be useful.

When it comes to the poor, it is often the fact that plastic bags are a necessity as opposed to a luxury that compels them to purchase a plastic bag. In comparison to carrier bags that can be re-used, the plastic bag is cheap and therefore affordable in comparison.<sup>111</sup> Dependence on public transport requires that essentials are carried in suitable packaging. Ultimately though it has been stated that the levy charged is simply too small to have a long-term effect on the eradication of plastic bags.<sup>112</sup>

Strict enforcement of the thickness of plastic bags<sup>113</sup> has also been lacking and plastic bags that do not comply with the specifications in the regulations<sup>114</sup> can be seen littering our communities.

There are penalties imposed for failure to comply with the regulations but to date there appears to have been little success in enforcing these.<sup>115</sup> This could also be as a result of the socio-economic impact the ban on production of inferior quality plastic bags has had on the manufacturing sector and the pressure that has been placed on government by organised

---

<sup>109</sup> J Dikgang,, A Leiman, and Visser 'Analysis of the plastic-bag levy in South Africa at page 8-9.

<sup>110</sup> E Witbooi 'Plastic Bag Regulation in South Africa: Just a Load of Rubbish?' (2003) 10:1 *SAJELP* at page 67-68.

<sup>111</sup> E Witbooi 'Plastic Bag Regulation in South Africa: Just a Load of Rubbish?' (2003) 10:1 *SAJELP* at page 67-68.

<sup>112</sup> J Dikgang,, A Leiman, and MVisser 'Analysis of the plastic-bag levy in South Africa at page 9.

<sup>113</sup> As required in Regulation 2 of the Regulations.

<sup>114</sup> See detail of specifications in paragraph 2.2.2 above.

<sup>115</sup> The lack of enforcement of current legislative provision will be further discussed in chapter 3 when considering the challenges to the implementation of legislation dealing with single-use plastic in South Africa.

labour to ease up on the enforcement thereof in order to minimise job losses in that sector.<sup>116</sup> Other than their strict enforcement, another challenge appears to be the fact that the Regulations did not completely ban plastic bags and most South Africans have simply become habituated into paying for plastic bags.<sup>117</sup>

In a study by O'Brien and Thondhlana<sup>118</sup> it was demonstrated that such market-based approaches are effective for a short period only. Respondents in the study acknowledged the scourge of plastic bags but also admitted to their continued use due to convenience. The study revealed that factors such as gender, age and level of education influenced people's willingness to pay for plastic bags.

Whilst there was definitely a "cognitive shift that occurred amongst consumers"<sup>119</sup> in that economic value was attached to a plastic bag, the conclusion was that the price of the plastic bags would have to be considerable for there to be any considerable increase in consumption.<sup>120</sup>

The lesson to be learnt from the Plastic Bag Regulations<sup>121</sup> is therefore that regulating single-use plastic by imposing a levy on its use does not work as people will simply pay for the product unless the levy is so high as to be prohibitive.<sup>122</sup> This would have the same detrimental socio-economic effect as banning the use of single-use plastic products altogether

---

<sup>116</sup> E Witbooi 'Plastic Bag Regulation in South Africa: Just a Load of Rubbish?' (2003) 10:1 *SAJELP* at page 67-68.

<sup>117</sup> J Dikgang, A Leiman, and M Visser 'Analysis of the plastic-bag levy in South Africa' (2012) 66 *Resources, Conservation and Recycling* at page 64.

<sup>118</sup> J O'Brien, G Thondhlana 'Plastic Bag Use in South Africa: Perceptions, practices and potential intervention strategies' (2019) *Waste Management* 84. 320-328

<sup>119</sup> Hasson, Reviva & Leiman, Anthony & Visser, Martine 'The economics of plastic bag legislation in South Africa'. (2007) *South African Journal of Economics*. 75. 66 - 83.

<sup>120</sup> E Witbooi 'Plastic Bag Regulation in South Africa: Just a Load of Rubbish?' (2003) 10:1 *SAJELP* at page 67-68.

<sup>121</sup> Plastic Bag Regulations Gazette No. 7548 in Government Gazette No. 23393 dated 9 May 2002.

<sup>122</sup> J O'Brien, G Thondhlana 'Plastic Bag Use in South Africa: Perceptions, practices and potential intervention strategies' (2019) *Waste Management* 84. 320-328



as single-use plastics manufacturers would still be affected by the drop in demand for the product. It therefore seems more sensible that if manufacturers are to be affected, the products should be banned completely so manufacturers in that sector are forced to diversify into alternative products.

## **2.4 A comparison of regulation in foreign jurisdictions to curb plastic pollution**

In order to assess whether further regulation of single-use plastic is necessary in South Africa, an overview of regulation imposed in some foreign jurisdictions is useful.

### **2.4.1 European Union**

The European Parliament has finalised a Directive<sup>123</sup> for its member states that will, when fully implemented, completely ban a range of single-use plastics including cutlery, straws, cotton bud sticks and balloon sticks. It is envisaged that this will be fully implemented by 2021.<sup>124</sup> The Single-Use Plastics Directive<sup>125</sup> contains provisions whereby member states have until July 3, 2021, to indicate what measures they have adopted (such as laws, regulations, and administrative provisions) to achieve a sustained reduction in the production of single-use plastic products.<sup>126</sup>

The member states have until July 3, 2024 to apply measures to ensure that certain single-use beverage containers that have caps and lids made of plastic may only be placed on the market if the caps and lids remain attached to the containers during the products' intended use storage.<sup>127</sup>

---

<sup>123</sup> Single-Use Plastics Directive — Directive (EU) 2019/904 of the European Parliament and of the Council of 5 June 2019. <https://eur-lex.europa.eu/eli/dir/2019/904/oj>.

<sup>124</sup> L Donnelley (2019) Death or taxes for polluting plastic. Mail & Guardian, 18 April 2019. <https://mg.co.za/article/2019-04-18-00-death-or-taxes-for-polluting-plastic/>.

<sup>125</sup> Single-Use Plastics Directive — Directive (EU) 2019/904 of the European Parliament and of the Council of 5 June 2019. <https://eur-lex.europa.eu/eli/dir/2019/904/oj>.

<sup>126</sup> Article 4 of the Single-Use Plastics Directive — Directive (EU) 2019/904 of the European Parliament and of the Council. <https://eur-lex.europa.eu/eli/dir/2019/904/oj>.

<sup>127</sup> Article 5 of the Single-Use Plastics Directive — Directive (EU) 2019/904 of the European Parliament and of the Council. <https://eur-lex.europa.eu/eli/dir/2019/904/oj>.

The document is an extremely useful guideline to countries wishing to implement similar provisions. Although it requires member states to enact their own legislation to implement the directive within their own countries, it provides the framework to be followed in order to do so and the targets that need to be met with specified deadlines.

It is submitted that the phasing of the implementation deadlines is a realistic approach that may indeed be successful in South Africa as they provide sufficient time in which to consult with the necessary stakeholders so as to avoid obvious socio-economic impacts associated with such a ban.

The Directive is a new document, having only been passed by the European Parliament and Council on 5 June 2019. It also provides useful definitions<sup>128</sup> and categorisation of single-use plastics into Part A, B and C in the Annex with a complete restriction in trade of those single-use plastics listed in Part B.<sup>129</sup> Other useful provisions are those to be implemented in relation to Product requirements<sup>130</sup>, Marking requirements<sup>131</sup> and Extended User Responsibility.<sup>132</sup>

---

<sup>128</sup> Article 3 (Definitions) of the Single-Use Plastics Directive — Directive (EU) 2019/904 of the European Parliament and of the Council. <https://eur-lex.europa.eu/eli/dir/2019/904/oj>.

<sup>129</sup> Article 6 of the Single-Use Plastics Directive — Directive (EU) 2019/904 of the European Parliament and of the Council. Products listed in Part B of the Annex include (1) Cotton bud sticks, except if they fall within the scope of Council Directive 90/385/EEC (1) or Council Directive 93/42/EEC (2); (2) Cutlery (forks, knives, spoons, chopsticks); (3) Plates; (4) Straws, except if they fall within the scope of Directive 90/385/EEC or Directive 93/42/EEC; (5) Beverage stirrers; (6) Sticks to be attached to and to support balloons, except balloons for industrial or other professional uses and applications that are not distributed to consumers, including the mechanisms of such sticks; (7) Food containers made of expanded polystyrene, i.e. receptacles such as boxes, with or without a cover, used to contain food which: (a) is intended for immediate consumption, either on-the-spot or take-away, (b) is typically consumed from the receptacle, and (c) is ready to be consumed without any further preparation, such as cooking, boiling or heating, including food containers used for fast food or other meal ready for immediate consumption, except beverage containers, plates and packets and wrappers containing food; (8) Beverage containers made of expanded polystyrene, including their caps and lids; (9) Cups for beverages made of expanded polystyrene, including their covers and lids. <https://eur-lex.europa.eu/eli/dir/2019/904/oj>.

<sup>130</sup> Article 6 of the Single-Use Plastics Directive — Directive (EU) 2019/904 of the European Parliament and of the Council. <https://eur-lex.europa.eu/eli/dir/2019/904/oj>.

<sup>131</sup> Article 7 of the Single-Use Plastics Directive — Directive (EU) 2019/904 of the European Parliament and of the Council. <https://eur-lex.europa.eu/eli/dir/2019/904/oj>.

<sup>132</sup> Article 8 of the Single-Use Plastics Directive — Directive (EU) 2019/904 of the European Parliament and of the Council. <https://eur-lex.europa.eu/eli/dir/2019/904/oj>.

## 2.4.2 Rwanda and Kenya

Some argue that the EU may succeed in implementing a total ban on single-use plastics due to the fact that they are a community of developed nations that enjoy high rates of employment and growth and can buffer any adverse socio-economic effects that such a ban may have. However it is particularly interesting to note that both Rwanda and Kenya have boldly implemented total bans on plastic bags despite being in a similar plight to South Africa with respect to socio-economic issues and have enjoyed considerable success in this regard to date.

On the 14<sup>th</sup> March 2017, the Kenya government gazetted a ban of the use, manufacture and importation of all plastic bags used for commercial and household packaging.<sup>133</sup> However, it was Rwanda that were in fact the first African country to boldly implement legislation<sup>134</sup> in 2008 that prohibits the manufacture, importation, use and sale of Polythene bags within Rwanda.

It is submitted that Kenya's success in the implementation of their ban on plastic bags is due to the fact that they have rigidly enforced this ban, handing out fines of between \$500 and \$1500 to ordinary citizens who failed to comply and going as far as to even imprison a manufacturer for a year without the option of a fine for failing to comply.<sup>135</sup> Despite the fact that the Kenyan Manufacturing Association has estimated that it has cost about 60 000 jobs and forced approximately 176 manufacturers to close<sup>136</sup> the government persisted with the implementation of the law and has followed through with enforcement thereof. This has reportedly had a positive spin off with estimates of an 80% reduction in plastic bag waste across the country. It has also forced manufacturers to diversify into producing carrier bags

---

<sup>133</sup> Notice in terms of The Environmental Management and Co-Ordination Act, GN No.2334.  
<http://extwprlegs1.fao.org/docs/pdf/ken41653.pdf>.

<sup>134</sup> Law N°57/2008 of 10/09/2008, Law Relating to the Prohibition of Manufacturing, Importation, Use and Sale of Polythene Bags, Rwanda Management Authority, at p. 78.

[http://rema.gov.rw/rema\\_doc/Laws/Plastic%20bags%20law.pdf](http://rema.gov.rw/rema_doc/Laws/Plastic%20bags%20law.pdf).

<sup>135</sup> BBC News 'Has Kenya's Plastic Bag Ban Worked?' 28 August 2019. <https://www.bbc.com/news/world-africa-49421885>.

<sup>136</sup> The Guardian 'Kenya brings in world's toughest plastic bag ban: four years jail or \$40,000 fine.' 28 August 2017. <https://www.theguardian.com/environment/2017/aug/28/kenya-brings-in-worlds-toughest-plastic-bag-ban-four-years-jail-or-40000-fine>.

made from natural materials.<sup>137</sup> The ban on plastic bags is seen as the first step in a process to ban further single-use products.

A challenge that remains in Kenya is the illegal trade in plastic bags that are smuggled in from other countries. However this is likely to be curbed in the long run given Kenya's strict enforcement of the penalties for possession of a plastic bag.

Rwanda has adopted a similar stance to Kenya. In 2008 it banned the import, production, use or sale of plastic bags and packaging for general use and only allows its use in exceptional circumstances such as in hospitals and pharmaceutical products.<sup>138</sup> Imports must have plastic removed before further distribution and stores are required to remove all plastic packaging before selling items. Enforcement is rigid and those that either smuggle, produce or use plastic are dealt with decisively with a fine, jail time or a public confession. There are many spontaneous inspections of stores with undercover agents from Rwanda's Environmental Authority performing checks and padlocking stores that flout the laws. The shops are only allowed to reopen once a fine has been paid.<sup>139</sup>

The results are self-evident with Rwanda now regarded as one of the cleanest countries in Africa, an acknowledgement it was awarded by UN Habitat.<sup>140</sup>

Behuria suggests that their success lies in the fact that in Rwanda the plastic bag industry was virtually non-existent and therefore they have had to deal with considerably less backlash than Kenya whose well established plastic bag industry has continued to oppose the outright

---

<sup>137</sup> BBC News 'Has Kenya's Plastic Bag Ban Worked?' 28 August 2019. <https://www.bbc.com/news/world-africa-49421885>.

<sup>138</sup> Law N°57/2008 of 10/09/2008, Law Relating to the Prohibition of Manufacturing, Importation, Use and Sale of Polythene Bags, Rwanda Management Authority.

[http://rema.gov.rw/rema\\_doc/Laws/Plastic%20bags%20law.pdf](http://rema.gov.rw/rema_doc/Laws/Plastic%20bags%20law.pdf).

<sup>139</sup> K de Freytas-Tamura 'Public Shaming and Even Prison for Plastic Bag Use in Rwanda' The New York Times, 28 October 2017. <https://www.nytimes.com/2017/10/28/world/africa/rwanda-plastic-bags-banned.html>.

<sup>140</sup> World Economic Forum 'Five Ways Rwanda is Leading on Green Growth', 9 May 2016.. <https://www.weforum.org/agenda/2016/05/5-ways-rwanda-is-leading-on-green-growth/>.

ban imposed in that country.<sup>141</sup> It is also submitted that neither country has particularly strong trade unions to contend with whereas South Africa's trade unions are the most developed on the continent. Our trade unions also remain critical for democratic consolidation<sup>142</sup> which makes them a force to be reckoned with when considering the socio-economic impact of the banning of single-use plastics.<sup>143</sup>

That is not to say that there has not been opposition from the manufacturing sector and businessmen within Rwanda. However the government seemingly ignores the grumbling from these sectors and continues to consistently enforce the provisions. Their success most likely lies in the fact that they enforce the ban without fear or favour and they have implemented it as part of their programme "Vision 2020" which aims to bring all Rwandans on board their development programme which is based on integrating green growth and climate resilience strategies.<sup>144</sup> This starts at school where children are taught the value of the environment from an early age.<sup>145</sup>

The lesson for South Africa from both countries is that if there is a will to impose regulation that bans single-use plastic it must be rigidly enforced to see any meaningful results.

---

<sup>141</sup> P Behuria The comparative political economy of plastic bag bans in East Africa: why implementation has varied in Rwanda, Kenya and Uganda (2019). GDI Working Paper 2019-037. Manchester: The University of Manchester.

<sup>142</sup> M Budeli "Trade Unionism and Politics in Africa: the South African Experience." (2012) *The Comparative and International Law Journal of Southern Africa*, 45:3 pp. 454–481.

<sup>143</sup> This is further discussed in chapter 3 when considering the challenges to the implementation of legislation dealing with single-use plastic in South Africa.

<sup>144</sup> World Economic Forum 'Five Ways Rwanda is Leading on Green Growth', 9 May 2016.. <https://www.weforum.org/agenda/2016/05/5-ways-rwanda-is-leading-on-green-growth/>.

<sup>145</sup> K de Freytas-Tamura 'Public Shaming and Even Prison for Plastic Bag Use in Rwanda' The New York Times, 28 October 2017. <https://www.nytimes.com/2017/10/28/world/africa/rwanda-plastic-bags-banned.html>.

### **Chapter 3: Challenges South Africa faces with regard to promulgation of legislation banning single-use plastics**

In chapter 2 it was confirmed that South Africa has a plethora of legislation dealing with waste. There are a number of relevant principles contained in NEMA<sup>146</sup> and the NEM: WA<sup>147</sup>. However, other than the Plastic Bag Regulations<sup>148</sup>, it has been established that there is no specific legislation dealing with single-use plastic.

The implementation and enforcement of the existing provisions in our legislation has not been successful in combating single-use plastic waste. This is evidenced by the plastic waste that we see as litter around us as well as the plastic waste that ends up in storm water outlets, rivers and oceans.<sup>149</sup> It is also evidenced by the fact that the South African consumer has not found an alternative to the plastic bag but has simply become habituated to paying for them.<sup>150</sup>

The problem it is submitted is multi-faceted. Firstly, environmental management solutions proposed in NEMA and the NEM: WA are ineffective for a number of reasons.<sup>151</sup> Secondly, the enforcement of these provisions is inconsistent if existent at all. Thirdly, legislation that does not completely ban single-use plastic does not eradicate the source of the problem which is the plastic itself.<sup>152</sup>

---

<sup>146</sup> Section 2 of the National Environmental Management Act, Act 107 of 1998.

<sup>147</sup> National Environmental Management: Waste Act, Act 59 of 2008.

<sup>148</sup> Plastic Bag Regulations Gazette No. 7548 in Government Gazette No. 23393 dated 9 May 2002.

<sup>149</sup> IOL News Comments by Acting Port Manager Nokuzola Nkowane: 'Durban Starts the Massive Clean Up' 24 April 2019. <https://www.iol.co.za/ios/news/durbanstorm-port-of-durban-starts-the-massive-clean-up-21916488>.

<sup>150</sup> J Dikgang, A Leiman, and M Visser 'Analysis of the plastic-bag levy in South Africa' (2012) 66 *Resources, Conservation and Recycling* at page 64.

<sup>151</sup> See discussion in paragraph 3.1 hereunder.

<sup>152</sup> Erik Solheim: Head of UN Environment stated that 'Plastic is not the problem, it is what we do with it.'<sup>152</sup> In chapter 1 it was submitted that in the South African context this is not the case and it is plastic that is the problem as we tend to deal with plastic waste so poorly. It is disposed of recklessly by littering and where it does make it to landfill sites, it is then not dealt with appropriately<sup>152</sup>.

From the review of the stance taken in the European Union as well as Rwanda and Kenya, it is clear that eradication of the problem of single-use plastic requires the promulgation of legislation which completely bans its use.

However a complete or partial ban of single-use plastic poses a number of challenges for South Africa which need to be explored in order to assess whether we would be wasting our time promulgating such legislation.

### **3.1 Challenges associated with environmental management solutions**

A number of environmental management mechanisms exist to deal with plastic waste. These will be briefly discussed as this paper seeks to consider legal solutions to the problem of single-use plastic as opposed to environmental management solutions. However it is necessary to consider the environmental management mechanisms as in doing so we are able to establish that they do not provide a solution to the current problem of single-use plastic waste for a number of reasons.

Whilst the most obvious solution to the management of any waste may seem to be proper processing at disposal stage, this is in fact an outdated approach since the introduction of the Waste Management Hierarchy.<sup>153</sup> In terms of the Hierarchy the most obvious solution is the avoidance of waste in the first place. In South Africa processing waste at disposal stage is problematic for a number of reasons. Firstly waste is not appropriately disposed of with many people simply disposing of it with the presumption that someone else will collect it and dispose of it for them. Lack of education regarding the detrimental impact of unsuitable disposal leads to this mindset.<sup>154</sup> People in lower socio-economic groups tend to have less awareness of the problems associated with littering and there is therefore a definite link

---

<sup>153</sup> See the National Environmental Management: Waste Act, Act 59 of 2008 and National Waste Management Strategy , 2011.

<sup>154</sup> Department of Environmental Affairs ‘South Africa State of Waste. A report on the state of the Environment’ (2018). Department of Environmental Affairs, Pretoria at page 13.

<http://sawic.environment.go.za>

between social conditions and littering in South Africa.<sup>155</sup> It follows that without an improvement in those social conditions, it is unlikely that there will be an improvement in the problem of littering.

Secondly, where waste is disposed of and collected for transfer to landfills, these landfills are overused and poorly managed resulting in an additional problem.<sup>156</sup> Landfill space is also extremely limited and they are not deemed sustainable as none of the materials used in the production of the waste are recovered.<sup>157</sup> Our ultimate goal therefore needs to be the reduction of waste in general through the implementation of the waste hierarchy principles.<sup>158</sup>

Recycling and reuse<sup>159</sup> of plastic is promoted by many as a solution to the plastic waste crisis. In some respects recycling can indeed reduce environmental impact as instead of producing plastic products which has detrimental effects on the environment; we recycle what has already been produced thus reducing production. It is also a mechanism to reduce waste where we do not see what is to be recycled as waste at all but simply as products.<sup>160</sup> The definition of what comprises waste is therefore critically important as “defining something as waste ....involves treading a very thin line between ‘resource’ and ‘waste’.”<sup>161</sup>

Extended producer responsibility mechanisms<sup>162</sup> are also effective in encouraging the recycling of goods and can also assist in bolstering collection schemes.<sup>163</sup>

---

<sup>155</sup> R Furusa ‘A study exploring littering behavior and identifying strategies to curb littering’.(2015) [http://www.knowledgeco-op.uct.ac.za/sites/default/files/image\\_tool/images/155/303](http://www.knowledgeco-op.uct.ac.za/sites/default/files/image_tool/images/155/303).

<sup>156</sup> Department of Environmental Affairs ‘South Africa State of Waste. A report on the state of the Environment’ (2018). Department of Environmental Affairs, Pretoria at page 13. <http://sawic.environment.go.za>.

<sup>157</sup> J Hopewell, R Dvorak, E Kosior ‘Plastics Recycling: challenges and opportunities (2009) 364 (1526) *Philos Trans R Soc Lond B Biol Sci.* 2115-2126.

<sup>158</sup> Oelofse, S.H.H. and Godfrey, L. Defining waste in South Africa: moving beyond the age of ‘waste’ (2008) 104 *SAJS* 242-246.

<sup>159</sup> These are principles in the waste hierarchy.

<sup>160</sup> J Hopewell, R Dvorak, E Kosior ‘Plastics Recycling: challenges and opportunities (2009) 364 (1526) *Philos Trans R Soc Lond B Biol Sci.* 2115-2126.

<sup>161</sup> Oelofse, S.H.H. and Godfrey, L. Defining waste in South Africa: moving beyond the age of ‘waste’ (2008) 104 *SAJS* p243.

<sup>162</sup> Section 18 of the National Environmental Management: Waste Act, Act 59 of 2008.



There are however a number of challenges with recycling. Bartl suggests that this is why it takes third place in the waste hierarchy as he submits that it does not tackle causes but only the symptoms.<sup>164</sup> The first challenge is that its positive environmental impact is determined by the process used to recycle the products. Certain methods of recycling can have a detrimental effect on the environment and recycling by its nature requires energy and generates waste.<sup>165</sup> It has also been pointed out that any process whereby plastic is heated in order to recycle it may have just as serious impacts on the environment as disposing of the plastic as waste.<sup>166</sup>

The second challenge with recycling is that to effectively recycle mixed plastics is problematic. Most collection points are for rigid packaging and not plastic film and flexible packaging and where these are mixed, it is very difficult for them to be effectively separated and recycled without considerable cost.<sup>167</sup>

Thirdly in most instances it is cheaper to manufacture the plastic product than to recycle it.<sup>168</sup>

Finally, and most importantly for consideration in this paper is that whilst some plastic is suitable for reuse and recycling, single-use plastic by its very nature<sup>169</sup> and definition is

---

<sup>163</sup> J Hopewell, R Dvorak, E Kosior ‘Plastics Recycling: challenges and opportunities (2009) 364 (1526) *Philos Trans R Soc Lond B Biol Sci.* 2115-2126.

<sup>164</sup> A Bartel ‘Moving from recycling to waste prevention: A review of barriers and enables’ (2014) 32:9 *Waste Management and Research* 3-18.

<sup>165</sup> A Bartel ‘Moving from recycling to waste prevention: A review of barriers and enables’ (2014) 32:9 *Waste Management and Research* 3-18.

<sup>166</sup> Rinku Verma et al. ‘Toxic Pollutants from Plastic Waste’ (2016) 35 *Procedia Environmental Sciences* 701 – 708.

<sup>167</sup> Extended producer responsibility mechanisms are also effective in encouraging the recycling of goods and can also assist in bolstering collection schemes.<sup>167</sup>

<sup>168</sup> See discussion in paragraph 1.2 above and

L Miller et al ‘Challenges and Alternatives to Plastic Recycling’ (2014) *Materials* 7 at page 5887.

<sup>169</sup> See para 2.1.1 above. The European Union has defined single-use plastic products as ‘a product that is made wholly or partly from plastic and that is not conceived, designed or placed on the market to accomplish, within its lifespan, multiple trips or rotations by being returned to a producer for refill or re-used for the same purpose for which it was conceived.

generally not. It is estimated that 21-40% of packaging found in a shopping basket, even if collected cannot be recycled.<sup>170</sup>

### **3.2 Challenges associated with introducing regulation incorporating a complete or partial ban of single-use plastic**

The aim of this dissertation <sup>171</sup> is firstly to establish whether there is a need for the regulation of single-use plastic in South Africa and secondly to establish whether implementing such regulation would be a waste of time. When one considers the environmental management challenges that exist to effectively disposing of plastic waste but more importantly that single-use plastic cannot be reused and recycled, one starts to appreciate the need for a legislative solution to the problem of single-use plastic in the form of a partial or complete ban of single-use plastic.

The dangers of single-use plastic to the environment and human health have been established.<sup>172</sup> The challenges of managing single-use plastic waste have also been noted.<sup>173</sup>

The limited success of the Plastic Bag Regulations have also shown us that creating plastic products that are not single-use and may be recycled (such as a thicker plastic bag) is also not a long term solution. Consumers will most often forget to take their recyclable product<sup>174</sup> and end up purchasing another.<sup>175</sup> This means that plastic, even in a recyclable form continues to be produced (with all the environmental impacts that production entails<sup>176</sup>) but not reduced.

---

<sup>170</sup> Local Government Association UK 'War on waste: food packaging study'(2007).  
<https://www.local.gov.uk/sites/default/files/documents/war-waste-food-packaging--629.pdf>.

<sup>171</sup> As alluded to in chapter 1.

<sup>172</sup> See discussion in chapter 2 above.

<sup>173</sup> See discussion in paragraph 3.1 above.

<sup>174</sup> Such as a coffee cup or plastic bag that can be used again.

<sup>175</sup> J O'Brien, G Thondhlana 'Plastic Bag Use in South Africa: Perceptions, practices and potential intervention strategies' (2019) *Waste Management* 84. 320-328

<sup>176</sup> Plastic products are derived from petrochemicals produced from fossil oil and gas and the manufacture also requires energy.

In Rwanda and Kenya where legislation has been implemented completely banning the use of plastic bags<sup>177</sup>, the results have been much more successful. However what is clear in both these cases is that the enforcement of the legislation has been strict and without fear or favour.

Fines are meted out to anyone who transgresses and are payable on the spot with alternative consequences being imposed where the payment of the fine is not forthcoming. This strict enforcement has developed a culture of compliance.<sup>178</sup>

Political will and resources are required for such enforcement. In both countries the equivalent of our “Green Scorpions”<sup>179</sup> have been used to enforce the provisions and regular inspections are undertaken, often under cover. Environmental Management Inspectors, referred to as the “Green Scorpions” are designated in terms of Section 31B and C of NEMA. Their mandate is broad and includes pollution and waste. They have powers to investigate, conduct inspections, enforce laws by searching and seizing and issue compliance notices and directives.<sup>180</sup>

Whilst there has been some engagement with the business sector, their objection to the promulgation and enforcement of the bans has been noted but has not affected the decision as to whether to implement and enforce the legislation.<sup>181</sup>

The challenges in South Africa are therefore to recognise the socio-economic impact that the prohibition of the production of single-use plastic will cause but to find alternative products to manufacture so that industries affected have a viable alternative.

---

J Hopewell, R Dvorak, E Kosior ‘Plastics Recycling: challenges and opportunities (2009) 364 (1526) *Philos Trans R Soc Lond B Biol Sci.* 2115-2126.

<sup>177</sup> See discussion on laws of Kenya and Rwanda in Chapter 2, paragraph 2.4.2.

<sup>178</sup> BBC News Has Kenya’s Plastic Bag Ban Worked? 28 August 2019. <https://www.bbc.com/news/world-africa-49421885>.

<sup>179</sup> Department of Environmental Affairs and Tourism ‘Who are the Green Scorpions?’ [https://www.environment.gov.za/sites/default/files/docs/publications/greenscorpions\\_newspaperinsert.pdf](https://www.environment.gov.za/sites/default/files/docs/publications/greenscorpions_newspaperinsert.pdf).

<sup>180</sup> Department of Environmental Affairs and Tourism ‘Who are the Green Scorpions?’ [https://www.environment.gov.za/sites/default/files/docs/publications/greenscorpions\\_newspaperinsert.pdf](https://www.environment.gov.za/sites/default/files/docs/publications/greenscorpions_newspaperinsert.pdf).

<sup>181</sup> K de Freytas-Tamura ‘Public Shaming and Even Prison for Plastic Bag Use in Rwanda’ *The New York Times*, 28 October 2017. <https://www.nytimes.com/2017/10/28/world/africa/rwanda-plastic-bags-banned.html>.

If there is successful consultation with stakeholders an imperative is still the proper enforcement of the legislation once it is promulgated. Enforcement is a major impediment to upholding the rule of law in general. Where people either do not appreciate that there will be consequences to their actions or do not fear such consequences, there will be no desire to comply with legislation. Therefore any transgression must be punished swiftly and severely so that there is motivation to comply. It has been stated that

‘Within national legal systems it is becoming increasingly apparent that merely having legislation ‘on the books’ is not sufficient – and that even in systems where criminal provisions are enforced effectively, criminal law by itself will never be sufficient. Effective administrative practices and the availability of means for civil society to become involved are just as important.’<sup>182</sup>

For successful enforcement of the law there are a number of requirements. The first is resources both in terms of manpower and financial resources. This is because for enforcement there must first be inspection in order to establish whether or not there is compliance.<sup>183</sup> Inspection requires the availability of dedicated officials<sup>184</sup> who can both monitor compliance and mete out penalties where there is non-compliance. This is what is meant by “administrative practices”. In Kenya for example officials are empowered to penalise people committing minor offences (such as possessing plastic bags when they are banned) so that only serious offences are brought before the courts.<sup>185</sup> Our “Green Scorpions” do not enjoy the same powers presently and any prosecution or punishment of offenders by fine or jail time must still be conducted by the National Prosecuting Authority.<sup>186</sup>

---

<sup>182</sup> UNEP (2014) Enforcement of Environmental Law: Good Practices from Africa, Central Asia, ASEAN Countries and China at page 15-16. <http://wedocs.unep.org/handle/20.500.11822/9968>.

<sup>183</sup> UNEP (2014) Enforcement of Environmental Law: Good Practices from Africa, Central Asia, ASEAN Countries and China at page 15-16. <http://wedocs.unep.org/handle/20.500.11822/9968>.

<sup>184</sup> Such as the “Green Scorpions” mentioned in paragraph 3.2 above.

<sup>185</sup> UNEP (2014) Enforcement of Environmental Law: Good Practices from Africa, Central Asia, ASEAN Countries and China at page 31. <http://wedocs.unep.org/handle/20.500.11822/9968>.

<sup>186</sup> Department of Environmental Affairs and Tourism ‘Who are the Green Scorpions?’ [https://www.environment.gov.za/sites/default/files/docs/publications/greenscorpions\\_newspaperinsert.pdf](https://www.environment.gov.za/sites/default/files/docs/publications/greenscorpions_newspaperinsert.pdf).

Where more serious matters are to come before court, there needs to be capacity in the court system to deal with environmental offences. In some countries, lawyers and magistrates are specifically trained in the area of environmental offences and dedicated courts set up on an ad hoc basis to deal with these matters. In Kenya the Environmental and Land Court Act of 2011 was promulgated to establish a court to deal specifically with environmental and land issues.<sup>187</sup>

Secondly, enforcement requires co-operation between the different spheres as well as branches of government. It has been noted that a common problem faced by many governments is a lack of co-ordination between not only the private and the public sectors but also between the spheres of government themselves.<sup>188</sup> Enforcing national legislation is not only a national government problem. If laws regulating the manufacture and use of single-use plastic are to be effectively enforced there would have to be the co-operation of provincial and local government who would in effect be responsible for such enforcement at ground level.

It seems clear that single-use plastic requires regulation. However if the challenges to the implementation of such regulation are not dealt with then the promulgation of the legislation will indeed be a waste of time in so far as whilst they may be promulgated, they will not be effectively implemented and enforced.

It is submitted that there are a number of ways that the challenges can be dealt with taking into account the manner in which regulation has been drafted and implemented in the European Union and Kenya. A phased approach of the implementation of banning single-use plastics will allow manufacturers to plan ahead to minimise any negative socio-economic impacts and job losses. Empowering officials from national and provincial government to make inspections and deal with offenders summarily will also ensure that the court system is not burdened with enforcement.<sup>189</sup>

---

<sup>187</sup> UNEP (2014) Enforcement of Environmental Law: Good Practices from Africa, Central Asia, ASEAN Countries and China at page 21-22. <http://wedocs.unep.org/handle/20.500.11822/9968>.

<sup>188</sup> UNEP (2014) Enforcement of Environmental Law: Good Practices from Africa, Central Asia, ASEAN Countries and China at page 9. <http://wedocs.unep.org/handle/20.500.11822/9968>.

<sup>189</sup> Further detail relating to recommendations for the content of such regulation is discussed in chapter 4.

## **Chapter 4: Recommendations to address the regulation of single-use plastic in South Africa**

### **4.1 Regulation banning single-use plastics**

There are indeed a number of environmental management tools that can be put in place to curb the use of single-use plastic and so reduce single-use plastic waste.<sup>190</sup> However it has been established that there are a number of challenges associated with the management of single-use plastic as waste that mean these are not solutions to the problem of single-use plastic waste.<sup>191</sup> Introducing a new set of regulations under NEMA that bans or partially bans single-use plastics is seemingly the only logical step forward that will not only mean that the products are no longer manufactured within South Africa but their importation from other countries and their use within South Africa will also be prohibited.

South Africa is already lagging behind with introducing such bans as numerous countries around the world have already introduced partial or total bans on certain products or published policy documents on their intended plan of how and when to do so.<sup>192</sup> In fact South Africa is considerably behind many of its African neighbours in the introduction of complete bans on a variety of single-use plastic products but most notably plastic bags. In a recent study<sup>193</sup> the UN reports that Africa stands out as a leader internationally with more than half of African countries having implemented complete bans of plastic bags between 2014 and 2017. In Europe, Italy and France plastic bags have been completely banned and many other countries are intent on introducing bans of various single-use plastic products to comply with EU Directive 2019/904.<sup>194</sup> Australia has banned lightweight plastic bags whereas Papua New Guinea has completely banned all non-biodegradable plastic bags. In North America, most

---

<sup>190</sup> See discussion in paragraph 3 above regarding environmental management tools such as proper disposal and recycling.

<sup>191</sup> See discussion in paragraph 3.1 regarding the challenges relating to environmental management mechanisms.

<sup>192</sup> UNEP(2018). SINGLE-USE PLASTICS: A Roadmap for Sustainability at page 23-44.  
[https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic\\_sustainability.pdf](https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic_sustainability.pdf).

<sup>193</sup> UNEP(2018). SINGLE-USE PLASTICS: A Roadmap for Sustainability.  
[https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic\\_sustainability.pdf](https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic_sustainability.pdf).

<sup>194</sup> Single-Use Plastics Directive — Directive (EU) 2019/904 of the European Parliament and of the Council of 5 June 2019. <https://eur-lex.europa.eu/eli/dir/2019/904/oj>.

bans happen at a local government level but California, Hawaii and Canada all have bans on lightweight plastic bags. New York has taken it a step further by also banning all Styrofoam products.<sup>195</sup> Therefore, if for no other reason, regulating single-use plastic in South Africa will bring us in line with the steps already taken by the international community.

The process will not be straight forward and it will not result in an immediate ban of all single-use plastic products.<sup>196</sup> However a phased approach is possible where there is an immediate ban on products for which an alternative already exists in the market.

This will no doubt take time and in the interim pressure should be put on various stakeholders to implement their own bans prior to the promulgation of regulations. For example, in New Zealand government met with two of the major supermarket chains and agreed to implement immediate bans of all plastic packets in their stores.<sup>197</sup> This sort of self-regulation is starting to emerge even in South Africa where many franchises and supermarkets are using their environmentally friendly status as a marketing tool to attract the more environmentally conscious consumer.<sup>198</sup>

The “South African Plastic Pact” is an example of another initiative currently being used to commence dialogue on goals pertaining to plastic waste reduction and eradication. The Plastic Pact is a collaboration between various stakeholders in the value chain including manufacturers, users and NGO’s to address plastic pollution and waste. It has set a set of targets to be met by 2025 which include taking action on problematic or unnecessary plastic packaging through redesign, innovation or alternative (re-use) delivery models, ensuring that 100% of plastic packaging is reusable, recyclable or compostable, ensuring that 70% of

---

<sup>195</sup> UNEP(2018). SINGLE-USE PLASTICS: A Roadmap for Sustainability at page 23-44.  
[https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic\\_sustainability.pdf](https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic_sustainability.pdf).

<sup>196</sup> Paragraph 3.2 above discusses the challenges to the implementation of legislation banning single-use plastic which include the socio-economic consequences of such. Planning timeframes are critical to avoiding massive job loss so that manufacturers can diversify into manufacturing alternative products.

<sup>197</sup> <https://www.stuff.co.nz/business/98308042/how-the-supermarkets-plastic-bag-bans-will-work>.

<sup>198</sup> See for example discussion in paragraph 4.3 regarding South African restaurant chains that have banned the use of straws.

plastic packaging is effectively recycled and ensuring that there is a 30% average of recycled content across all plastic packaging<sup>199</sup>.

To meet these ambitious targets of changes in packaging design and usage, regulations will be required that give effect to what has been agreed upon. The process of drafting such regulations is expedited given the time it will take to properly consult and obtain buy in from stakeholders. During this process, it is submitted that the Plastic Bag Regulations<sup>200</sup> should be repealed and the banning of plastic bags be included under a new set of regulations which encompasses a phased approach to the partial and complete banning of single-use plastics. Whilst it has been established that the new regulated thicker plastic bags do not strictly fit into the definition of single-use plastic,<sup>201</sup> the fact that they are not used multiple times as was intended by the Regulations makes it important that they are included as one of the types of plastics whose manufacture, importation and use should be banned.

## **4.2 Defining plastics to be banned**

It is important to distinguish between single-use plastic and other types of plastic that may be recycled or re-used. This is because the proposed solutions for the management of plastic waste are dependent on these definitions.<sup>202</sup> It is therefore critical to ensure that the definition of plastic waste is appropriate in the first place.<sup>203</sup>

A starting point when drafting legislation will be to be specific with definitions. It will be necessary to define plastic waste and then define single-use plastics or indeed to include single-use plastic within an alternative definition.<sup>204</sup> The European Union has already provided a comprehensive definition of single-use plastic as “a product that is made wholly or

---

<sup>199</sup> <https://www.saplasticspact.org.za/how/>.

<sup>200</sup> Plastic Bag Regulations Gazette No. 7548 in Government Gazette No. 23393 dated 9 May 2002.

<sup>201</sup> See page 43, para 4.2 for definition of single-use plastic and discussion in this regard in paragraph 4.2.

<sup>202</sup> See discussion in paragraph 3.1 above.

<sup>203</sup> A Bartel ‘Moving from recycling to waste prevention: A review of barriers and enablers’ (2014) 32:9 *Waste Management and Research* 3-18.

<sup>204</sup> See discussion below relating to the term “priority plastics”.



partly from plastic and that is not conceived, designed or placed on the market to accomplish, within its lifespan, multiple trips or rotations by being returned to a producer for refill or re-used for the same purpose for which it was conceived”<sup>205</sup> A similar definition can be incorporated into any new legislation that we may enact. This definition clearly differentiates between those plastics that may be re-used and those that may not and so as an immediate alternative suggests that we seek out those that are reusable.

It is however important to note that whilst plastic bags that meet certain specifications may be seen as reusable and therefore not fall into the category or the definition of single-use plastic, in practice they are not reused and this has resulted in countries electing to ban them completely.<sup>206</sup> There should therefore be a consideration of whether they should indeed be defined outside of the ambit of single-use plastic. The plastic bags being made in terms of our Plastic Bag Regulations<sup>207</sup> clearly fall outside the current EU definition of single-use plastics as they have been manufactured with a thicker density with the view that they would be used multiple times. It is submitted however that because of the conundrum associated with their definition, when we contemplate bans on single-use plastics, an outright ban of plastic bags must be considered.<sup>208</sup> This could be through a process of their inclusion in a particular category in a particular Annexure of proposed legislation.<sup>209</sup> Naturally this would require the repeal of the current Plastic Bag Regulations<sup>210</sup> and the enactment of a comprehensive set of regulations that fall under NEMA dealing with the issue of single-use plastics or a redefined group of plastics that could be termed “priority plastics”.<sup>211</sup> We need to be conscious of the

---

<sup>205</sup> Article 3 of the Single-Use Plastics Directive — Directive (EU) 2019/904 of the European Parliament and of the Council defines single-use plastic <https://eur-lex.europa.eu/eli/dir/2019/904/oj>.

<sup>206</sup> See discussion in chapter 3 above regarding the fact that people have become habituated to purchasing plastic bag and not reusing them.

<sup>207</sup> Plastic Bag Regulations Gazette No. 7548 in Government Gazette No. 23393 dated 9 May 2002.

<sup>208</sup> For the reasons discussed in chapter 3.

<sup>209</sup> See for example Part A-G of the Annex of the Single-Use Plastics Directive — Directive (EU) 2019/904 of the European Parliament and of the Council. <https://eur-lex.europa.eu/eli/dir/2019/904/oj>.

<sup>210</sup> Plastic Bag Regulations Gazette No. 7548 in Government Gazette No. 23393 dated 9 May 2002.

<sup>211</sup> The term “priority plastics” has been bandied about by many as a term to describe those plastics that have become problematic to the environment in that they cannot be disposed of without damage to the environment or they are not able to be or are simply not recycled by consumers. The Department of Environment, Forestry and Fisheries currently use this term to describe single use plastics but include plastic bags when using the term

fact that the same could happen with other reusable containers that would fall outside of the definition of single-use plastic. The consumer may initially be responsive to the reusable version of the vessel or container but then become accustomed to simply paying for a new one each time it is required. This will in turn not achieve the ultimate goal of reducing the amount of plastic in circulation.

### 4.3 Categorising single-use plastics

If we are to pursue a process of phasing in a banning of single-use plastic then identifying and categorising the most problematic single-use plastics and appropriate measures for their management is critical. The European Union has identified and categorized single-use plastics according to their characteristics and they appear in Part A to Part G of the Directive.<sup>212</sup> Packaging South Africa confirms that there are a number of unnecessary single-use-plastics that can be eliminated through redesign and innovation.<sup>213</sup> However they caution that you cannot simply assess packaging in isolation. Consideration must be given to its purpose as packaging has many uses including preservation of perishable products, protection against theft, increasing shelf life and providing information to the consumer that is useful and also mandatory in terms of regulation. To find an alternative that is able to fulfil these requirements is indeed a challenge.<sup>214</sup>

The options that may be included in regulation would be consumption reduction, restrictions on placing on the market, product requirements and product marking requirements, extended producer responsibility and measures that must be implemented to raise awareness.<sup>215</sup> These

---

–Department of Environment, Forestry and Fisheries (2019) Portfolio Committee Parliamentary report on Single Use Plastics Ban discussed in Parliament on 27 February 2019. <https://pmg.org.za/committee-meeting/27987/>.

<sup>212</sup> Single-Use Plastics Directive — Directive (EU) 2019/904 of the European Parliament and of the Council. <https://eur-lex.europa.eu/eli/dir/2019/904/oj>.

<sup>213</sup> L Ralph ‘Packaging SA responds to Plastics Ban’ (2019) - Comments by Shabeer Jhetam, Executive Director of Packaging SA at page 2. <https://www.packagingsa.co.za/2019/03/08/packaging-sa-responds-to-plastics-ban/>.

<sup>214</sup> L Ralph ‘Packaging SA responds to Plastics Ban’ (2019) - Comments by Shabeer Jhetam, Executive Director of Packaging SA <https://www.packagingsa.co.za/2019/03/08/packaging-sa-responds-to-plastics-ban/>

<sup>215</sup> Part A-G of the Annex of the Single-Use Plastics Directive — Directive (EU) 2019/904 of the European Parliament and of the Council. <https://eur-lex.europa.eu/eli/dir/2019/904/oj>.

options are in line with the proposals put forward by the United Nations<sup>216</sup> as part of their road map to sustainability when it comes to single-use plastic and therefore South Africa would do well to take heed of the recommendations. Each category of single-use plastic would then be considered and the most appropriate option recommended for that category.

Consumption reduction has already begun amongst retailers in South Africa. In 2018, restaurant chain Ocean Basket began the campaign #No Straws in all of its restaurants countrywide and very soon other outlets followed suit with KFC also declaring that its outlets would be straw-free zones.<sup>217</sup> It was indeed one of the intended consequences of the Plastic Bag Regulations<sup>218</sup> that there would be consumption reduction of plastic bag consumption in South Africa but it has not been successful in the long term.<sup>219</sup> In comparison with the current #No Straws campaign that is enjoying substantial success where it has been implemented, it is clear that the complete ban of the product at the outlet is required to minimise its use. This has been evident where retailers such as Woolworths and Pick ‘n Pay still offer a thicker plastic bag for purchase as well as fabric and recycled bags. Consumers can still be seen purchasing plastic bags which remain a cheaper alternative to the fabric or recycled bags in stores such as Pick ‘n Pay and Woolworths but in retailers such as Cotton On where plastic bags are simply not available, the consumer has no choice but to accept the purchase of the environmentally friendly alternative.<sup>220</sup>

The most obvious single-use plastics where there can be an immediate consumption reduction have been identified by the European Union as cups for beverages including their covers and lids and food receptacles such as boxes which include food containers used for fast food.<sup>221</sup>

---

<sup>216</sup> UNEP(2018). SINGLE-USE PLASTICS: A Roadmap for Sustainability.  
[https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic\\_sustainability.pdf](https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic_sustainability.pdf).

<sup>217</sup> Broll (Q2:2019) SA Retail Snapshot ‘Retailers’ Transparency and Sustainability’.  
<https://www.broll.com/news/the-future-of-plastic-in-sas-retail-environment/>.

<sup>218</sup> See discussion in paragraph 3.2 above.

<sup>219</sup> See discussion in paragraph 3.2 above for reasons why.

<sup>220</sup> Broll (Q2:2019) SA Retail Snapshot ‘Retailers’ Transparency and Sustainability’.  
<https://www.broll.com/news/the-future-of-plastic-in-sas-retail-environment/>.

<sup>221</sup> Part A of the Annex of the Single-Use Plastics Directive — Directive (EU) 2019/904 of the European Parliament and of the Council.

The logic behind this directive to reduce consumption is that alternatives are immediately available for use.

These alternatives are also available for use in South Africa. However with the limited success that the Plastic Bag Regulations have had<sup>222</sup> in curbing the use of plastic shopping bags, there will need to be alternative methods employed to compel use of the alternatives. It is recommended that incentives be put in place through regulation to ensure their use.<sup>223</sup> As a start, if there is a directive in this regard and an incentive or alternatively penalties imposed for failure to reduce consumption then in the short term companies and organisations would be encouraged to comply. For example, where organizers of government gatherings, organised sporting events, concerts and the like are forced to use alternative beverage cups and food receptacles or not be allowed to proceed with the event, this would force compliance and go a long way to starting the reduction of their consumption.

When reflecting on the Plastic Bag Regulations<sup>224</sup> in South Africa however it is clear that even with alternatives and incentives to use these alternatives, the problem of single-use plastic may not be eradicated. Ultimately, there need to be restrictions on the placing on the market of certain products so that the consumer does not have a choice but to make use of an environmentally-friendly product. It is pleasing to note that this is one of the objectives of the South African Plastics Pact that has a number of major chain stores and franchises as members.<sup>225</sup>

#### **4.4 Proposed promulgation of legislation**

The process of promulgating legislation implementing partial or complete bans on products is lengthy and it is pleasing to note that South Africa has commenced with this process. DEA have confirmed that they have commenced a process of assessing the most problematic single-use plastic products in South Africa and stakeholder engagement has begun with a

---

<sup>222</sup> As discussed in paragraph 3.2 above.

<sup>223</sup> See more detailed discussion regarding incentives in paragraph 4.5.

<sup>224</sup> Plastic Bag Regulations Gazette No. 7548 in Government Gazette No. 23393 dated 9 May 2002.

<sup>225</sup> <https://www.saplasticspact.org.za/how/>.

view to implementing partial bans or bans on certain of these products.<sup>226</sup> In a recent report to the Environment Parliamentary Portfolio Committee, the Deputy Director General of the Chemicals and Waste branch of the Department of Environment, Forestry and Fisheries, set out the process as well as the challenges involved in a potential ban of single use plastics.<sup>227</sup>

The stakeholder engagement process prior to promulgating legislation is important. It was held in *Bengwenyama Minerals (Pty) Ltd and others v Minister of Environmental Affairs*<sup>228</sup> that stakeholder engagement must be meaningful and not simply a formal process. The process needs to involve “genuine and effective engagement of minds between the consulting and the consulted parties.”<sup>229</sup> Key stakeholder groups need to be identified and opposition from the plastics industry<sup>230</sup> and organised labour anticipated. To this end, research based on sound evidence should be procured in order to place these facts before stakeholders.

As part of the consultation process leading up to the implementation of the Plastic Bag Regulations<sup>231</sup> an agreement was negotiated with organised labour.<sup>232</sup> The agreement has been implemented to some extent but it is clear that more needs to be done in stimulating job creation of alternative products to single-use plastic.<sup>233</sup> The negotiation of such an agreement in the future for the implementation of bans on single-use plastics is nonetheless still recommended as such an agreement has a number of advantages. Firstly, it is indicative of the fact that meaningful consultation has taken place, involving transparency relating to both the advantages and disadvantages of implementation and thus usually ensures buy in from

---

<sup>226</sup> Email communication between the author and Mr Dumisani Buthelezi: Department of Environmental Affairs on [DButhelezi@environment.gov.za](mailto:DButhelezi@environment.gov.za) dated 9 May 2019.

<sup>227</sup> Department of Environment, Forestry and Fisheries (2019) Portfolio Committee Parliamentary report on Single Use Plastics Ban discussed in Parliament on 27 February 2019. <https://pmg.org.za/committee-meeting/27987/>.

<sup>228</sup> 2011(4)SA 113 (CC).

<sup>229</sup> *Bengwenyama Minerals (Pty) Ltd and others v Minister of Environmental Affairs* 2011(4)SA 113 (CC) at para 66.

<sup>230</sup> UNEP(2018). SINGLE-USE PLASTICS: A Roadmap for Sustainability. page 23-44. [https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic\\_sustainability.pdf](https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic_sustainability.pdf).

<sup>231</sup> Plastic Bag Regulations Gazette No. 7548 in Government Gazette No. 23393 dated 9 May 2002.

<sup>232</sup> An agreement was entered into on the 26<sup>th</sup> September 2002 between the erstwhile Department of Environmental Affairs and Tourism, COSATU, the National Council of Trade Unions and Organised Business.

<sup>233</sup> E Witbooi ‘Plastic Bag Regulation in South Africa: Just a Load of Rubbish?’ (2003) 10:1 *SAJELP* 67.

employers and employees going forward. Secondly it is a record of what the parties intend and can be used to monitor compliance with terms of the agreement as well as timeframes.

The challenge will be whether it will be possible to finalise such an agreement with organised labour? It is submitted that if a phased approach to the banning of single-use plastic products is adopted,<sup>234</sup> organised labour may be more willing to participate in the process as a phased approach should provide the single-use plastic manufacturing industry with an opportunity to diversify into the manufacture of alternative products.

However whilst engagement should be meaningful, it should also not prohibit implementation. There is indeed a balance that should be achieved in the implementation of such legislation. Whilst we want to proceed with implementation, meaningful engagement with stakeholders is important as, as Danielsson suggests the fast and repressive approach that the Rwandan government applied in completely banning the manufacture and sale of plastic bags is not ideal and does not accord with the principles of a democratic government.<sup>235</sup>

Educational campaigns will also be critical if we are to successfully implement legislative bans on single-use plastics. It is after all the consumer that sets the demands that prompt the manufacturer to manufacture a certain product.<sup>236</sup> It has been suggested that these awareness campaigns begin at primary school level but also target informal settlements where there is little understanding of the impact single-use plastics have on the environment and people's health and well being.<sup>237</sup> The Plastic Detox Challenge is an example of an educational campaign which was run during October 2018 and challenged both individuals and business to change single-use plastic habits during this month. The campaign was run online and allowed individuals and companies who signed up to not only received free educational

---

<sup>234</sup> Such as what is proposed in the Directive (EU) 2019/904 of the European Parliament and of the Council.

<sup>235</sup> M Danielsson The Plastic Bag Ban in Rwanda: Local Procedures and Successful Outcomes - A Case Study on how Rwanda Implemented a Nation-wide Ban on Plastic Bags (2017). Department of Government, Uppsala University.

<sup>236</sup> L Donnelley (2019) Death or taxes for polluting plastic. Mail & Guardian, 18 April 2019 at page 4.

<sup>237</sup> Suggested by Ms S Mchunu ANC MP and member of Environment Portfolio Committee at Portfolio Committee meeting held on 27 February 2019: Extract from Department of Environment, Forestry and Fisheries (2019) Portfolio Committee Parliamentary report on Single Use Plastics Ban discussed in Parliament on 27 February 2019.

resources but also provided a calculation of the quantity of single-use items that had been saved.<sup>238</sup>

#### **4.5 Content of proposed legislation**

Regulation should first and foremost ban categories of single-use plastics according to those that are most problematic. Much of the work in determining the most problematic categories of single-use plastics has already been completed by other countries and as we have these problematic single-use plastics in common we do not need to engage in studies to identify these plastics but can use the work that has already been completed.<sup>239</sup>

South Africa has however also commenced this process with the Department of Environment, Forestry and Fisheries having confirmed that amongst the list of prioritized single-use plastics they have identified are “straws, cotton buds, take away packs, plastic plates, cups and cutlery.” A report on the impact of phasing out these single use plastics is due to be forwarded to the Parliamentary Environment Portfolio Committee as soon as it is completed.<sup>240</sup> At a briefing to the Committee in February 2019, the Committee were advised that a study in 2015 revealed that South Africa was ranked eleven among the top twenty countries that mismanaged waste from plastics.<sup>241</sup> It is the intention of the Department of Environmental Affairs to introduce regulatory controls on short-lived plastics and the regulation should be drafted to implement a phased approach to the banning of these products according to their priority and the immediate availability of alternatives on the market. The phased approach has already been outlined and adopted in the European Union and therefore

---

<sup>238</sup> M Van Rensburg, A Nkomo, T Dube ‘The plastic era; social perceptions towards single-use plastic consumption and impacts on the marine environment in Durban, South Africa’ (2020) *Applied Geography* 114:102132 page 8.

<sup>239</sup> See both work conducted by the UNEP in the study UNEP(2018). SINGLE-USE PLASTICS: A Roadmap for Sustainability and the European Union’s definitions and guidelines in Single-Use Plastics Directive — Directive (EU) 2019/904 of the European Parliament and of the Council.

<sup>240</sup> Department of Environment, Forestry and Fisheries (2019) Portfolio Committee Parliamentary report on Single Use Plastics Ban discussed in Parliament on 27 February 2019.

<sup>241</sup> Department of Environment, Forestry and Fisheries (2019) Portfolio Committee Parliamentary report on Single Use Plastics Ban discussed in Parliament on 27 February 2019.

we may adopt a similar approach when drafting our regulations.<sup>242</sup> Bio-plastic production is being investigated by the Department because it decomposes easily but obtaining the raw materials to use to for production may be problematic.<sup>243</sup>

However a recent announcement by the Department that it was investigating a new policy and regulatory direction with regard to single-use plastic has been criticised by industry players.<sup>244</sup> A way to avoid such resistance is to incentivise manufacturers in the plastics industries with tax rebates or other conditions to support the transition.<sup>245</sup> A section relating to the principles relating to incentives should be included in the content of the proposed regulation with the initial incentives and levies being included in a Schedule attached thereto. The adjustment of the levies may be dealt with in by proclamation by the Minister of Environmental Affairs from time to time.<sup>246</sup>

Price Waterhouse Coopers tax experts have however cautioned that rebates and taxes alone cannot solve the problem and consideration must be given to how to encourage manufacturers to diversify to alternatives.<sup>247</sup>

In this regard the UN suggests that the pre-conditions for the uptake of alternatives must be in place before the ban comes into place. Such conditions might include reducing or abolishing taxes on the import of materials used to make the alternatives and providing support in the form of research and development funds to manufacturers as well as promoting public-private

---

<sup>242</sup> See discussion regarding the content of the European Union's Directive (EU) 2019/904 of the European Parliament and of the Council in paragraph 2.4.1.

<sup>243</sup> Department of Environment, Forestry and Fisheries (2019) Portfolio Committee Parliamentary report on Single Use Plastics Ban discussed in Parliament on 27 February 2019.

<sup>244</sup> Businesstech 'South Africa is looking at new policies around plastics and shopping bags' (31 January 2020).

<https://businesstech.co.za/news/business/369878/south-africa-is-looking-at-new-policies-around-plastics-and-shopping-bags/>.

<sup>245</sup> UNEP(2018). SINGLE-USE PLASTICS: A Roadmap for Sustainability.  
[https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic\\_sustainability.pdf](https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic_sustainability.pdf).

<sup>246</sup> It is suggested that these levies would need to be adjusted from time to time and therefore the actual levy should not be set in the regulations but may be determined by the Minister from time to time.

<sup>247</sup> L Donnelley (2019) Death or taxes for polluting plastic. Mail & Guardian, 18 April 2019 at page 3.



partnerships to assist with initial set up and funding of the required technology.<sup>248</sup> One of the areas of priority in this regard is that we ensure that local manufacturers are encouraged and incentivized to produce the alternatives and that these are not just imported from other countries. Currently the paper straws that are used to replace plastic ones are imported from China. The importation of these from China not only adds to the ever increasing carbon footprint but it also means that local manufacturers are not benefitting from their production.<sup>249</sup>

The plastic bag levy that was implemented in 2003 amounts to about R1.9billion between 2004 and 2018 and has to date not been used for environmental objectives.<sup>250</sup> This money should be ring-fenced and used to achieve the pre-conditions for alternative products. The funds could provide the seed funding needed to import the necessary technology for manufacturing the alternative products and may also be used to incentivise manufacturers to produce these alternatives.<sup>251</sup> In addition funding is required for the enforcement of the regulations and it is therefore critical that this money is allocated accordingly.<sup>252</sup> Consideration must also be given to imposing levies on those products that cannot immediately be phased out but continue to be manufactured and used by consumers. This additional funding could be used for enforcement relating to those products that have been banned in the first phases and to incentivise the manufacture of products to be banned in the following phases.

---

<sup>248</sup> UNEP(2018). SINGLE-USE PLASTICS: A Roadmap for Sustainability.

[https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic\\_sustainability.pdf](https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic_sustainability.pdf).

Also see point regarding the manufacture of alternatives within South Africa as opposed to their import in paragraph 4.5.

<sup>249</sup> L Ralph 'Packaging SA responds to Plastics Ban' (2019) - Comments by Shabeer Jhetam, Executive Director of Packaging SA.

<sup>250</sup> L Donnelley (2019) Death or taxes for polluting plastic. Mail & Guardian, 18 April 2019 at page 3.

<sup>251</sup> UNEP(2018). SINGLE-USE PLASTICS: A Roadmap for Sustainability.

[https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic\\_sustainability.pdf](https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic_sustainability.pdf).

<sup>252</sup> See discussion in paragraph 3.2 above relating to the challenges relating to enforcement of regulation.

## Chapter 5: Conclusion

The simple answer to the question whether the regulation of single-use plastic is a waste of time in South Africa is that it will **not** be a waste of time. This is simply because there is little other choice to effectively deal with what has become a global crisis. Furthermore, given that it is now a global concern and that there is a great deal of international attention being paid to the problem, South Africa will come under increasing pressure to comply with international standards.<sup>253</sup> We are already well behind many other countries, including the majority of African nations<sup>254</sup> when it comes to implementing a complete ban on plastic bags and we will soon lag behind on the banning of single-use plastics if we do not embark on a process of banning these plastic products through regulation.

What is also evident is that we will be wasting our time with anything other than a complete ban of single-use plastic products as our own failure to deal with the problem of plastic bags<sup>255</sup> is indicative of the fact that we need to move from recycling to waste prevention if we are to succeed. The review of the success that both Rwanda and Kenya have enjoyed in eradicating plastic bags from their environment is evidence of this.<sup>256</sup> Avoidance and reduction are after all first in the waste hierarchy and treatment and disposal is a last resort.<sup>257</sup>

It has also been established that there should be a careful consideration of the definition of what single-use plastics are as many are of the view that plastic bags which may be thicker in quality are recyclable and therefore do not fall into this category. Whilst this may be true in

---

<sup>253</sup> Department of Environment, Forestry and Fisheries (2019) Portfolio Committee Parliamentary report on Single Use Plastics Ban discussed in Parliament on 27 February 2019.

<sup>254</sup> UNEP(2018). SINGLE-USE PLASTICS: A Roadmap for Sustainability at page 14.

[https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic\\_sustainability.pdf](https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic_sustainability.pdf).

Also see discussion in paragraph 4.1 above.

<sup>255</sup> Despite having enacted the Plastic Bag Regulations – see discussion in chapter 3.

<sup>256</sup> See discussion on laws of Kenya and Rwanda in Chapter 2, paragraph 2.4.2.

<sup>257</sup> See discussion in paragraph 2.3.2 above regarding the Waste Hierarchy.

theory, people are not in the habit of recycling them and they do therefore constitute part of what has become “the single-use plastic problem”.<sup>258</sup>

It is clear that the legislation that we currently have in place provides only broad principles that guide the management of waste and measures to deal with the problem of single-use plastic are not specifically included. DEA has also acknowledged that local government is not in the position to implement the waste regulations that we do currently have.<sup>259</sup> The problem is such that we need to devise legislation that bans the manufacture and use of single-use plastic products if we are to have any chance at getting the problem under control.

A total ban of single-use plastic products will however only be successful in South Africa if we follow a constructive process whereby we engage with stakeholders effectively. The implementation of legislation should seek to ban categories of single-use plastics, including plastic bags using a phased approach starting with a ban on products for which an alternative is immediately available.<sup>260</sup>

Education campaigns should start at primary school level to cultivate a change in mindset at a young age. Many continue to be unaware of the dangers of single-use plastic waste and how this can affect each and every one of us and this is critical for people to understand. It is only when people realise that it will affect their health and well-being or their livelihood that they will take action to improve the situation. Single-use plastic is dangerous both to the environment and human health and can have socio-economic implications for people from all walks of life.<sup>261</sup> Once bans are implemented it will be important to communicate not only information on what the bans entail but also the mechanisms that will be used to enforce compliance with the legislation so that people are aware that there will be consequences for non-compliance.

---

<sup>258</sup> See discussion in chapter 3 above regarding the fact that people have become habituated to purchasing plastic bag and not reusing them.

<sup>259</sup> L Ralph ‘Packaging SA responds to Plastics Ban’ (2019).

<https://www.packagingsa.co.za/packaging-sa-responds-to-plastics-ban/> Accessed 16 October 2019.

<sup>260</sup> See discussion in chapter 4 above and Part A of the Annex of the Single-Use Plastics Directive — Directive (EU) 2019/904 of the European Parliament and of the Council as an example of products that might immediately be banned due to the availability of alternatives.

<sup>261</sup> See discussion in paragraph 2.2 relating to the dangers that single-use plastic poses.

In the final analysis if we are to not waste our time in drafting and implementing legislation to ban single-use plastics in South Africa then it will be critical that all parties involved step up and play their part. Single-use plastic waste is not a topic we should continue to talk about, it is something we now need to do something about. As Greta Thunberg has so aptly pointed out: “It is time to panic: we’re running out of time to save our planet”.<sup>262</sup>



*Plastic waste floating in Durban harbour following heavy rains in April 2019*

*Picture: Facebook*



*Litter occupies the surface of the water in the Durban Harbour after heavy rainfalls.*

*Picture by Greenpeace Africa*



*The impact of plastic waste on marine life*

*Picture: Ecowatch*



*Birds dying from plastic pollution*

*Picture: WWF Australia*

*Wwf.org.au*

<sup>262</sup> G Thunberg ‘The disarming case to act right now on climate change’ (2019) - Part 1 of the *TED Radio Hour* episode *Climate Crisis*.

## 6. Bibliography

### 6.1 Case Law

*Bengwenyama Minerals (Pty) Ltd and others v Minister of Environmental Affairs* 2011(4) SA 113 (CC)

### 6.2 Internet Sources

African Union ‘Agenda 2063’ <https://au.int/en/agenda2063/flagship-projects>. Accessed 6 August 2020.

African Union ‘High level working session on Banning Plastics in Africa; towards a pollution-free Africa (2019).

<https://au.int/en/newsevents/20190210/high-level-working-session-banning-plastics-africa-towards-pollution-free-africa>. Accessed 6 August 2020.

African Ministerial Conference on the Environment ‘Durban Declaration’ (2019).

[https://wedocs.unep.org/bitstream/handle/20.500.11822/30732/AMCEN\\_17Declaration.pdf?sequence=7](https://wedocs.unep.org/bitstream/handle/20.500.11822/30732/AMCEN_17Declaration.pdf?sequence=7). Accessed 6 August 2020.

BBC News ‘Has Kenya’s plastic bag ban worked?’ (2019).

<https://www.bbc.com/news/world-africa-49421885>. Accessed on 30 August 2019.

Broll (Q2:2019) SA Retail Snapshot ‘Retailers’ Transparency and Sustainability’.

[file:///C:/Users/User/Downloads/Broll%20Intel%20-%20SA%20Retail%20Snapshot%20Q2-2019%20Report\\_1.pdf](file:///C:/Users/User/Downloads/Broll%20Intel%20-%20SA%20Retail%20Snapshot%20Q2-2019%20Report_1.pdf). Accessed 4 November 2019.

Businesstech ‘South Africa is looking at new policies around plastics and shopping bags’ (2020).

<https://businesstech.co.za/news/business/369878/south-africa-is-looking-at-new-policies-around-plastics-and-shopping-bags/>. Accessed 6 August 2020.

J Cocker & S Kasner ‘Resource Recovery Plan for African Union’s Plastics’ *Environmental Law Insights* (2020)

<https://www.lexology.com/library/detail.aspx?g=902a1303-2472-480f-93ff-7cd02800fb86>.

Accessed 7 August 2020

R Clayton ‘How the plastic bags ban will work’ (2017).

<https://www.stuff.co.nz/business/98308042/how-the-supermarkets-plastic-bag-bans-will-work>. Accessed 24 October 2019.

E Cirino ‘What laws work best to cut plastic pollution?’ (2019)  
<https://therevelator.org/plastic-pollution-laws/>. Accessed 22 April 2019.

Opening Statement by Director General, Ms Nosipho Ngcaba during the High-Level Segment of the 3<sup>rd</sup> Session of the UN Environment Assembly, 14 March 2019  
[https://www.environment.gov.za/mediarelease/nosiphongcaba\\_3rdsessionunenvironmentassembly](https://www.environment.gov.za/mediarelease/nosiphongcaba_3rdsessionunenvironmentassembly). Accessed on 22 April 2019.

Department of Environment, Forestry and Fisheries (2019) Portfolio Committee Parliamentary report on Single Use Plastics Ban discussed in Parliament on 27 February 2019. Report available at <https://pmg.org.za/committee-meeting/27987/>. Accessed on 16 October 2019.

Department of Environmental Affairs and Tourism (2002). Plastic Bags Agreement. Pretoria: Department of Environmental Affairs and Tourism. Accessed on 19 March 2019.

Department of Environmental Affairs ‘South Africa State of Waste. A report on the state of the Environment’ (2018). Department of Environmental Affairs, Pretoria at page 13.

<http://sawic.environment.go.za> Accessed on 27<sup>th</sup> August 2019.

Department of Environmental Affairs and Tourism 'Who are the Green Scorpions?' [https://www.environment.gov.za/sites/default/files/docs/publications/greenscorpions\\_newspaperinsert.pdf](https://www.environment.gov.za/sites/default/files/docs/publications/greenscorpions_newspaperinsert.pdf). Accessed on 18 September 2019.

E Pelser, & J Rauch 'South Africa's Criminal Justice System: Policy and Priorities' (2001) Paper presented at the South African Sociological Association (SASA) Annual Congress, *Globalisation, Inequality and Identity*, 1-4 July. <https://www.csvr.org.za/publications/1437-south-africas-criminal-justice-system-policy-and-priorities>. Accessed on 21 November 2019.

K Fullerton 'Reflecting on Rwanda's plastic bags ban' (2014) *International Development Journal*. <https://idjournal.co.uk/2017/04/24/reflecting-rwandas-plastic-bags-ban/>. Accessed on 26 August 2019.

R Furusa 'A study exploring littering behavior and identifying strategies to curb littering' (2015). [http://www.knowledgeco-op.uct.ac.za/sites/default/files/image\\_tool/images/155/303\\_Whale%20coast\\_Literature%20on%20Littering.pdf](http://www.knowledgeco-op.uct.ac.za/sites/default/files/image_tool/images/155/303_Whale%20coast_Literature%20on%20Littering.pdf). Accessed on 18 September 2019.

G Thunberg 'The disarming case to act right now on climate change' (2019) - Part 1 of the *TED Radio Hour* episode *Climate Crisis*. <https://www.npr.org/2019/06/07/730383662/greta-thunberg-are-we-running-out-of-time-to-save-our-planet>. Accessed on 18 November 2019.

'Kenya brings in world's toughest plastic bag ban: four years jail or \$40,000 fine' (2017). The Guardian, 28 August. <https://www.theguardian.com/environment/2017/aug/28/kenya->



[brings-in-worlds-toughest-plastic-bag-ban-four-years-jail-or-40000-fine.](#) Accessed on 26 August 2019.

K de Freytas-Tamura 'Public Shaming and Even Prison for Plastic Bag Use in Rwanda' (2017) The New York Times, 28 October.

<https://www.nytimes.com/2017/10/28/world/africa/rwanda-plastic-bags-banned.html>.

Accessed on 5 September 2019.

L Donnelley 'Death or taxes for polluting plastic' (2019). Mail & Guardian, 18 April 2019.

<https://mg.co.za/article/2019-04-18-00-death-or-taxes-for-polluting-plastic>. Accessed on 4 September 2019.

LD Nguyen 'An Assessment of Policies on Polystyrene Food Ware Bans' (2012). Master's Projects. 266. [http://scholarworks.sjsu.edu/etd\\_projects/266](http://scholarworks.sjsu.edu/etd_projects/266). Accessed on 18 February 2019.

Local Government Association 'War on waste: food packaging study' (2007).

<https://www.local.gov.uk/sites/default/files/documents/war-waste-food-packaging--629.pdf>.

Accessed on 18 September 2019.

L Ralph 'Packaging SA responds to Plastics Ban' (2019)

<https://www.packagingsa.co.za/packaging-sa-responds-to-plastics-ban/> Accessed 16 October 2019

M Danielsson 'The Plastic Bag Ban in Rwanda: Local Procedures and Successful Outcomes - A Case Study on how Rwanda Implemented a Nation-wide Ban on Plastic Bags' (2017). Department of Government, Uppsala University.



<http://www.diva-portal.org/smash/get/diva2:1067480/FULLTEXT01.pdf>.

Accessed on 2 October 2019.

M Wakabi 'Uganda in plastic bag ban dilemma' (2015). The East African. <http://www.theeastafrican.co.ke/news/Uganda-in-plastic-bag-ban-dilemma/2558-2683982-4oll4l/index.html>. Accessed on 22 April 2019.

P Behuria 'The comparative political economy of plastic bag bans in East Africa: why implementation has varied in Rwanda, Kenya and Uganda' (2019). GDI Working Paper 2019-037. Manchester: The University of Manchester.

<http://hummedia.manchester.ac.uk/institutes/gdi/publications/workingpapers/GDI/gdi-working-paper-2019037-behuria.pdf>. Accessed on 2 September 2019.

SADC 'SADC calls for improved waste management as the international community commemorates 2018 World Environment Day' (2018) <https://www.sadc.int/news-events/news/sadc-calls-improved-waste-management-international-community-commemorates-2018-world-environment-day/>. Accessed on 11 August 2020.

The South African Plastics Pact.

<https://www.saplasticspact.org.za/how/>. Accessed 11 August 2020.

UNEP 'Enforcement of Environmental Law: Good Practices from Africa, Central Asia, ASEAN Countries and China' (2014).

<https://wedocs.unep.org/bitstream/handle/20.500.11822/9968/enforcement-environmental-laws.pdf?sequence=1&isAllowed=y>. Accessed on 13 September 2019.

UNEP 'Marine Litter Legislation: A Toolkit for Policymakers' (2016).

<https://www.eli.org/sites/default/files/eli-pubs/marine-litter-legislation-toolkit-policymakers.pdf>. Accessed on 9th October 2019.

World Economic Forum 'Five Ways Rwanda is Leading on Green Growth'(2019).

<https://www.weforum.org/agenda/2016/05/5-ways-rwanda-is-leading-on-green-growth/>. Accessed on 3 September 2019.

World Economic Forum 'From linear to circular – Accelerating a proven concept' (2014).

[http://www3.weforum.org/docs/WEF\\_ENV\\_TowardsCircularEconomy\\_Report\\_2014.pdf](http://www3.weforum.org/docs/WEF_ENV_TowardsCircularEconomy_Report_2014.pdf).

Accessed 7 August 2020.

World Economic Forum 'The Travel & Tourism Competitiveness Report: Paving the way for a more sustainable and inclusive future' (2017).

[http://www3.weforum.org/docs/WEF\\_TTCR\\_2017\\_web\\_0401.pdf](http://www3.weforum.org/docs/WEF_TTCR_2017_web_0401.pdf).

Accessed 9 October 2019.

### **6.3 Journal Articles**

A Bartel 'Moving from recycling to waste prevention: A review of barriers and enables' (2014) 32:9 *Waste Management and Research* 3-18.

A Nahmann 'Extended producer responsibility for packaging waste in South Africa: Current approaches and lessons learned' (2010) 54:3 *Resources, Conservation and Recycling* 155-162.

J Dikgang, A Leiman, and M Visser 'Elasticity of Demand, Price and Time: Lessons from South Africa's Plastic Bag Levy (2012) 44:26 *Journal of Applied Economics* 3339-3342.

E Witbooi 'Plastic Bag Regulation in South Africa: Just a Load of Rubbish?' (2003) 10:1 *SAJELP* 67.

Nations Environment Assembly resolution on marine litter and micro plastics' (2018) 27:3 *RECIEL* 234-244.

G Nhamo 'Regulating Plastics Waste, Stakeholder Engagement and Sustainability Challenges in South Africa' (2008) 19:1 *Urban Forum* 83-101.

R Hasson, A Leiman & M Visser 'The economics of plastic bag legislation in South Africa'. (2007) *South African Journal of Economics*. 75. 66 - 83.

J O'Brien, G Thondhlana 'Plastic Bag Use in South Africa: Perceptions, practices and potential intervention strategies' (2019) *Waste Management* 84. 320-328.

J Dikgang, A Leiman, and M Visser ‘Analysis of the plastic-bag levy in South Africa. Resources, Conservation and Recycling’ (2012) 66 *Resources, Conservation and Recycling* 59-65.

JH Heckman ‘Harmonizing Food Packaging Regulations: An American and European Dilemma’ (1992) 47 *Food & Drug L.J.* 579.

J Hopewell, R Dvorak, E Kosior ‘Plastics Recycling: challenges and opportunities (2009) 364 (1526) *Philos Trans R Soc Lond B Biol Sci.* 2115-2126.

KI Montroll ‘Solid Waste Source Reduction and the Product Ban: A Commerce Clause Violation’ (1989) 13 *Vt. L. Rev.* 691.

L Breggin ‘Bans in single-use plastic rise in popularity, protecting the oceans’ (2018) *Environmental Forum* 35: 5, p11.

L Miller et al ‘Challenges and Alternatives to Plastic Recycling’ (2014) *Materials* 7 pp.5883-5902.

M Budeli “Trade Unionism and Politics in Africa: the South African Experience.” (2012) *The Comparative and International Law Journal of Southern Africa*, 45:3 pp. 454–481.

M Smith, D Love, C Rochman, R Neff ‘Microplastics in Seafood and the Impacts on Human Health’ (2018) *Curr Environ Health Rep.*5(3) pp.375–386.

M Van Rensburg, A Nkomo, T Dube ‘The plastic era; social perceptions towards single-use plastic consumption and impacts on the marine environment in Durban, South Africa’ (2020) *Applied Geography* 114:102132 pp.1-9.

P Dauvergne 'The power of environmental norms: marine plastic pollution and the politics of micro beads' (2018) *Environmental Politics* 27(4):579.

R Moharam, M Ali Al Maqtari 'The impact of Plastic Bags on the Environment' (2014) 2:4 *International Journal of Engineering Research and Reviews* 61-69.

Rinku Verma et al. 'Toxic Pollutants from Plastic Waste' (2016) 35 *Procedia Environmental Sciences* 701 – 708.

SHH Oelofse and L Godfrey 'Defining waste in South Africa: moving beyond the age of 'waste'' (2008) 104 *SAJS* 242-246.

Z He 'Pollution characteristics and health risk assessment of volatile organic compounds emitted from different plastic solid waste recycling workshops' (2015) 77 *Environment International* 85-94.

#### **6.4 Books**

Glazewski J *Environmental Law in South Africa* (Durban Lexis Nexis 2005).

ML Hugo 'Environmental management: An ecological guide to sustainable living in Southern Africa'(Ecoplan: Brooklyn Square 2004).

Kidd M *Environmental Law* (Cape Town Juta 2008).

## ***6.5 Legislation and Policy***

Agenda 21 (Rio Earth Summit).

Consumer Protection Act, Act 68 of 2008.

Declaration on Environment and Development, 1992.

Draft National Biodiversity Framework, 1998 in GNR No.41982 dated 19 October 2018.

Johannesburg Plan of Implementation, 2002 World Summit on Sustainable Development.

Law Relating to the Prohibition of Manufacturing, Importation, Use and Sale of Polythene Bags, Rwanda Management Authority, Law N°57/2008 of 10/09/2008 at p.78.

Available at [http://rema.gov.rw/rema\\_doc/Laws/Plastic%20bags%20law.pdf](http://rema.gov.rw/rema_doc/Laws/Plastic%20bags%20law.pdf).

National Environmental Management Act 108 of 1997

National Environmental Management :Waste Act 59 of 2008

National Waste Management Strategy, 2010.

Notice in terms of The Environmental Management and Co-Ordination Act, Kenya Gazette No.2334 dated 14 March 2017.

Plastic Bag Regulations Gazette No. 7548 in Government Gazette No. 23393 dated 9 May 2002.

Single-Use Plastics Directive — Directive (EU) 2019/904 of the European Parliament and of the Council of 5 June 2019.

Available at <http://data.europa.eu/eli/dir/2019/904/oj>.

United Nations Convention on the Law of the Sea (UNCLOS), 1982.

United Nations General Assembly Resolution 70/1 Sustainable Development Goals of 21 October 2015.

United Nations General Assembly Resolution 235 of 23 December 2015.

White Paper on Integrated Pollution and Waste Management GN227 in GG20978 of 17 March 2000.